

HUMANITY SPACE
INTERNATIONAL ALMANAC

ГУМАНИТАРНОЕ ПРОСТРАНСТВО
МЕЖДУНАРОДНЫЙ АЛЬМАНАХ

<http://www.humanityspace.net>
<http://www.humanityspace.ru>
<http://www.гуманитарноепространство.рф>



Volume 13, No 6
Том 13, № 6

ISSN 2226-0773



ISSN 2226-0773

**HUMANITY SPACE
INTERNATIONAL ALMANAC**

**ГУМАНИТАРНОЕ ПРОСТРАНСТВО
МЕЖДУНАРОДНЫЙ АЛЬМАНАХ**

**Volume 13, No 6
Том 13, № 6**

БИОЛОГИЧЕСКИЕ НАУКИ / BIOLOGICAL SCIENCES

2024

Гуманитарное пространство. *Международный альманах* ТОМ 13, № 6, 2024
Humanity space. *International almanac* VOLUME 13, No 6, 2024

Главный редактор / Chief Editor: **М.А. Лазарев / M.A. Lazarev**

Дизайн обложки / Cover Design: **М.А. Лазарев / M.A. Lazarev**

E-mail: **humanityspace@gmail.com**

Зам. главного редактора / Deputy Chief Editor: **А.А. Ласкин / A.A. Laskin**

E-mail: **al.laskin@yandex.ru**

П.Б. Беккерман / P.B. Bekkerman

E-mail: **pavelbek75@gmail.com**

Научные редакторы / Scientific Editors: **В.П. Подвойский / V.P. Podvoysky**

E-mail: **9036167488@mail.ru**

О.В. Стукалова / O.V. Stukalova

E-mail: **stukalova@obrazfund.ru**

Веб-сайт / Website: **<http://www.humanityspace.net>**

<http://www.humanityspace.ru>

<http://www.гуманитарноепространство.рф>

Издательство / Publishers:

Международная академия образования / International Academy of Education

121433, Россия, г. Москва, ул. Большая Филёвская, 28, корп. 2

Bolshaya Filevskaya str., 28, building 2, Moscow 121433 Russia

Напечатано / Printed by:

ООО «АЕГ Групп» / A.E.G. Group

125009, г. Москва, Тверская улица, 27, строение 1, подъезд 2

Tverskaya str., 27, building 1, approach 2, Moscow 125009 Russia

Постер-МГУ / Poster-MSU

119296, г. Москва, ул. Молодежная, 3

Molodezhnaya, 3, Moscow 119296 Russia

Дата выпуска / Date of issue: **26.07.2024**

Реестр / Register: **ISSN 2226-0773**

DOI: **10.5281/zenodo.12934271**

EDN: **AFJDHH**

Фото на обложке / Cover photo: *Agapanthia (Epopetes) turanica* Plavilstshikov, 1929:

Lectotype was designated by Danilevsky in 2009 (*Agapanthia subchalybaea turanica*

Plavilstshikov, 1929). Collection of Zoological Museum of the Moscow State University.

Photo by Maxim Lazarev.

© Гуманитарное пространство. *Международный альманах*

Humanity space. International almanac

составление, редактирование

compiling, editing

РЕДАКЦИОННАЯ КОЛЛЕГИЯ

Алексеева Лариса Леонидовна

доктор педагогических наук, доцент, почётный работник науки и техники РФ

Баршевскис Арвидс (Латвия)

академик Латвийской академии наук, доктор биологических наук, профессор
Даугавпилсский университет

Блок Олег Аркадьевич

доктор педагогических наук, профессор
Московский государственный институт культуры
Президент отделения «Музыкальное искусство и образование»
Международной академии информатизации при ООН

Борц Анна (Польша)

доктор искусствоведения
Вроцлавский университет экологических и биологических наук
Институт ландшафтной архитектуры

Бочкарёва Екатерина Дмитриевна

кандидат педагогических наук
Московский государственный институт культуры

Губин Александр Игоревич

кандидат биологических наук
Донецкий ботанический сад

Данилевский Михаил Леонтьевич

кандидат биологических наук
Институт Проблем Экологии и Эволюции им. А.Н. Северцова РАН

Делий Павел Юрьевич

кандидат педагогических наук, профессор
Московский государственный институт культуры

Дуккон Агнеш (Hungary)

доктор филологических наук, профессор
Будапештского Университета им. Лоранда Этвеша (ELTE)
Венгерская Академия Наук (по венгерской литературе ренессанса и барокко)

Жаркова Алёна Анатольевна

доктор педагогических наук, профессор, профессор Российской
академии образования
Московский государственный институт культуры

Жарков Анатолий Дмитриевич

академик Российской академии естественных наук, доктор педагогических наук, профессор, заслуженный работник культуры РФ
Московский государственный институт культуры

Илларионова Людмила Петровна

доктор педагогических наук, профессор
Государственный университет просвещения

Кадников Виталий Валерьевич

кандидат биологических наук
Институт биоинженерии, ФИЦ Биотехнологии Российской академии наук

Калимуллина Ольга Анатольевна

доктор педагогических наук, профессор, член-корреспондент Российской академии образования
Поволжский государственный университет физической культуры, спорта и туризма

Ласкин Александр Анатольевич

доктор педагогических наук, профессор
Международная академия образования

Малянов Евгений Анатольевич

доктор педагогических наук, профессор
Пермский государственный институт культуры

Москвина Анна Сергеевна

кандидат педагогических наук, доцент
Государственный университет просвещения

Овечко Николай Николаевич

кандидат биологических наук, старший научный сотрудник
Научно-исследовательский институт вакцин и сывороток имени И.И. Мечникова Российской академии наук

Оленев Святослав Михайлович

доктор философских наук, профессор
Московская государственная академия хореографии

Печко Лейла Петровна

доктор философских наук, профессор

Пирязева Елена Николаевна

кандидат искусствоведения

Подвойский Василий Петрович

доктор педагогических наук, кандидат психологических наук, профессор

Поль Дмитрий Владимирович

доктор филологических наук, профессор

Московский педагогический государственный университет

Полюдова Елена Николаевна (США: Калифорния)

кандидат педагогических наук

Окружная библиотека Санта Клара

Сёке Каталин (Венгрия)

кандидат филологических наук, доцент

Института Славистики Сегедского университета

Стукалова Ольга Вадимовна

доктор педагогических наук, доцент

Благотворительный фонд «Образ жизни»

Институт психологии Российской академии образования

Солодухин Владимир Иосифович

доктор педагогических наук, профессор

Санкт-Петербургский гуманитарный университет профсоюзов

Солодухина Татьяна Константиновна

доктор педагогических наук, профессор

Санкт-Петербургский гуманитарный университет профсоюзов

Табачникова Ольга Марковна (Великобритания: Престон)

доктор философских наук, кандидат физико-математических наук, доцент

Университет Центрального Ланкашира

Щербакова Анна Иосифовна

доктор педагогических наук, доктор культурологии, профессор

Московский государственный институт имени А.Г. Шнитке

EDITORIAL BOARD

Alekseeva Larisa Leonidovna

Dr. of Pedagogical Sciences, Associate Professor, Honorary Worker of Science and Technology of the Russian Federation

Barševskis Arvids (Latvia)

Academician of Latvian Academy of Science, Dr. of Biological Sciences, Professor Daugavpils University

Blok Oleg Arkadevich

Dr. of Pedagogical Sciences, Professor

Moscow State University of Culture

President of the Department of Music and Education of the International Academy of Informatization at the United Nations

Borch Anna (Poland)

Dr. of Art Criticism

Wroclaw University of Environmental and Life Sciences

Institute of Landscape Architecture

Bochkareva Ekaterina Dmitrievna

PhD of Pedagogical Sciences

Moscow State Institute of Culture

Danilevsky Mikhail Leontevitch

PhD of Biological Sciences

A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences

Dely Pavel Yurevich

PhD of Pedagogical Sciences, Professor

Moscow State University of Culture

Dukkon Ágnes (Hungary)

Dr. of Philological Sciences, Professor

Budapest University named after Eötvös Loránd (ELTE)

Hungarian Academy of Sciences (in Hungarian literature, Renaissance and Baroque)

Gubin Alexandr Igorevich

PhD of Biological Sciences

Donetsk Botanical Garden

Illarionova Lyudmila Petrovna

Dr. of Pedagogical Sciences, Professor

State University of Education

Kadnikov Vitaly Valerevich

PhD of Biological Sciences

Institute of Bioengineering, Federal Research Center “Fundamentals of Biotechnology” of the Russian Academy of Sciences

Kalimullina Olga Anatolievna

Dr. of Pedagogical Sciences, Professor, Corresponding Member of the Russian Academy of Education

Volga Region State University of Physical Culture, Sports and Tourism

Laskin Alexandr Anatolevich

Dr. of Pedagogical Sciences, Professor

International Academy of Education

Malyanov Evgeniy Anatolevich

Dr. of Pedagogical Sciences, Professor

Perm State Institute of Culture

Moskvina Anna Sergeevna

PhD of Pedagogical Sciences, Associate Professor

State University of Education

Ovechko Nikolay Nikolaevich

PhD of Biological Sciences, Senior Researcher

I.I. Mechnikov Scientific Research Institute of Vaccines and Serums of the Russian Academy of Sciences

Olenev Svyatoslav Mikhaylovich

Dr. of Philosophical Sciences, Professor

Moscow State Academy of Choreography

Pechko Leyla Petrovna

Dr. of philosophical science, Professor

Piryazeva Elena Nikolaevna

PhD of Art Criticism

Podvoysky Vasily Petrovich

Dr. of Pedagogical Sciences, PhD of Psychological Sciences, Professor

Pole Dmitriy Vladimirovich

Dr. of Philological Sciences, Professor

Moscow State Pedagogical University

Polyudova Elena Nikolayevna (USA: California)

PhD of Pedagogical Sciences

Santa Clara County Library

Shcherbakov Anna Iosifovna

Dr. of Pedagogical Sciences, PhD of Culturological Sciences, Professor

Moscow State Institute of Music named A.G. Schnittke

Stukalova Olga Vadimovna

Dr. of Pedagogical Sciences, assistant professor

The Charitable Foundation “Way of Life”

Institute of Psychology of the Russian Academy of Education

Solodukhin Vladimir Iosifovich

Dr. of Pedagogical Sciences, Professor

St. Petersburg Humanitarian University of Trade Unions

Solodukhina Tatyana Konstantinovna

Dr. of Pedagogical Sciences, Professor

St. Petersburg Humanitarian University of Trade Unions

Szoke Katalin (Hungary)

PhD of Philological Sciences, assistant professor

Institute of Slavic Studies of the University of Szeged

Tabachnikova Olga Markovna (United Kingdom: Preston)

Doctor of Philosophy (in Franco-Russian Studies and in Mathematics),
assistant professor

University of Central Lancashire

Zharkova Alena Anatolevna

Dr. of Pedagogical Sciences, Professor, Professor of the Russian Academy of Education

Moscow State University of Culture

Zharkov Anatoliy Dmitrievich

Academician of the Russian Academy of Natural Sciences, Dr. of Pedagogical
Sciences, Professor, Honored Worker of Culture of the Russian Federation

Moscow State University of Culture

<http://zoobank.org/urn:lsid:zoobank.org:pub:4CFEBA79-FC45-4C72-A67E-04781DC64553>

DOI: 10.24412/2226-0773-2024-13-6-432-439

EDN: GNXEZV

**Новый вид *Byrrhus* (Coleoptera: Byrrhidae)
с Дальнего Востока России***

А.А. Гусаков¹, М.Э. Смирнов²

¹Зоологический музей Московского государственного университета имени
М.В. Ломоносова

125009, г. Москва, ул. Большая Никитская, д. 2

Zoological Museum of the Moscow Lomonosov State University

Bol'shaya Nikitskaya str., 2, Moscow 125009 Russia

e-mail: gusakov@zmmu.msu.ru

²153037, г. Иваново, ул. Громобоя, д. 27

Gromoboja str., 27, Ivanovo 153037 Russia

e-mail: msmirnov08@gmail.com

Ключевые слова: Coleoptera, Byrrhidae, *Byrrhus*, новый вид, Россия.

Key words: Coleoptera, Byrrhidae, *Byrrhus*, new species, Russia.

Резюме: Жук-пилюльщик *Byrrhus ivanovi* **sp. n.** описан из России.

Abstract: A pill beetle *Byrrhus ivanovi* **sp. n.** is described from Russia.

[Gusakov A.A.¹, Smirnov M.E.² A new species of *Byrrhus* (Coleoptera: Byrrhidae) from the Russian Far East*]

Согласно последнему изданию каталога жуков Палеарктики, в фауне России выявлено 13 видов рода *Byrrhus* Linnaeus, 1767 (Jäger, Pütz, 2016). Ещё один, оказавшийся новым для науки, вид этого рода найден на Дальнем Востоке и описывается ниже.

Byrrhus ivanovi **sp. n.**

Рис. 1-2, 5

Byrrhus (s. str.) *sochondensis*: Чернышёв, 2005: 154 (Лазовский заповедник и его окрестности); Чернышёв, 2006: 291 (partim, Южное Приморье); Чернышёв, 2009: 137.

* Работа выполнена в рамках государственного задания Московского государственного университета им. М.В. Ломоносова (тема № 121032300105-0). The work was carried out within the framework of the state assignment of Moscow State University. M.V. Lomonosov (topic No. 121032300105-0).

Типовая местность. Россия, Приморский край, село Каменушка (~ 43°37'23" с. ш., 132°13'50" в. д.) близ Уссурийска.

Диагноз. Маленький, нелетающий *Byrrhus*, покрытый сверху многочисленными полуприлегающими дуговидно изогнутыми волосками.

Описание. Самец (Рис. 1-2). Тело широкоовальное, чёрное; кутикула придатков головы и ног большей частью светлее, от тёмно-бурой до коричневой. Верх в многочисленных полуприлегающих дуговидно изогнутых волосках чёрного, коричневого и белого цвета. Низ в редких коротких светлых прилегающих волосках. Длина, измеренная от середины переднего края переднеспинки до вершин надкрылий: 3.9-4.1 мм. Ширина: 2.8-3.0 мм.

Глаза удлинённо-овальной формы, не выпуклые, их длина (высота) в 1.87 раза превосходит максимальную ширину и в 6 раз больше длины щеки. Верхняя губа грубо пунктированная, за исключением гладкого слегка выпуклого переднего края, с торчащими золотисто-жёлтыми щетинками. Голова в крупных точках, расстояние между которыми значительно меньше их диаметра. Темя посередине без красноватого пятна. Усики сравнительно тонкие; 3-й членик усиков самый длинный, примерно в 2.6 раза длиннее своей максимальной ширины; 6-10-й членики отчётливо поперечные, увеличивающиеся в ширину; 11-й членик самый крупный, широко закругленный на вершине.

Переднеспинка при осмотре сбоку сильно выпуклая, сверху мелко пунктированная, умеренно блестящая; проплевры широкие, вогнутые, тонко шагреневанные, блестящие. Переднегрудь по переднему краю тонко окаймлена; поверхность четко пунктированная, блестящая; отросток длиннее своей ширины, с широко закруглённой вершиной. Щиток хорошо заметный, густо покрытый чёрными волосками. Среднегрудь поперечная, с глубокой U-образной выемкой на переднем крае, отчётливо пунктированная, блестящая.

Надкрылья с поперечными перевязями из светлых волосков; при осмотре сбоку сильно выпуклые; наиболее широкие у середины своей длины; с 11 тонкими бороздками, из которых вторая доходит только примерно до середины

надкрылий, а одиннадцатая слабо различима у края надкрылий в предвершинной трети их длины; промежутки сравнительно редко пунктированные, не морщинистые, заметно блестящие. Плечевые, предвершинные бугры надкрылий и крылья отсутствуют. Середина заднегруди умеренно пунктированная, блестящая, как и середина первого брюшного стернита. Брюшные стерниты большей частью в мелкой зернистости и грубой шагреневке, матовые.

Эдеагус (Рис. 5) на вершине очень слабо изогнут дорсовентрально; фаллобаза асимметричная; срединная лопасть длиннее парамер, слабо расширенная, её вершина нешироко закруглённая; парамеры плавно сужающиеся, с загнутыми наружу крючковидными вершинами. Длина эдеагуса: 1.4 мм.

Дифференциальный диагноз. Небольшими размерами, характером опушения верхней стороны тела и строением эдеагуса описываемый вид наиболее сходен с *Byrrhus sochondensis* Tshernyshev, 1999 (Рис. 3-4, 6-7) из Южного Забайкалья, но хорошо отличается от последнего меньшими размерами, пропорциями тела, строением усиков, скульптурой надкрылий, цветом опушения щитка и бескрылостью. Тело *B. ivanovi* **sp. n.** меньше (3.9-4.1 мм), широкоовальное, с наибольшей шириной у середины надкрылий, при осмотре сбоку максимально выпуклое в средней части; усики тоньше, их третий членик в 2.6 раза длиннее ширины; промежутки надкрылий без явно выраженной поперечной морщинистости; щиток в густых чёрных волосках; крылья отсутствуют. Тело *B. sochondensis* крупнее (4.8-4.9 мм), продолговато овальное, наиболее широкое несколько за серединой надкрылий, при осмотре сбоку максимально выпуклое в задней трети своей длины; усики толще, их третий членик только в 2 раза длиннее своей ширины; промежутки надкрылий, особенно на боках, с выраженной поперечной морщинистостью; щиток в светлых волосках; крылья нормально развиты (Tshernyshev, Pütz 1999: 18 - «Hind wings normal.»).

Материал. Голотип (в коллекции Зоологического музея МГУ), ♂ с двумя этикетками: 1) белая, фотографическая: «ю Приморье Каменушка бл. Уссурийск 4 VI 1984 [Н.Б.] Никитский»; 2) красная, печатная: «HOLOTYPUS *Byrrhus IVANOVI* Gusakov

et Smirnov». Экземпляр очень хорошей сохранности, смонтированный на уголке из плотного белого картона; эдеагус наклеен на другом уголке, подколотом на той же булавке. Паратипы: Приморский край: 1 ♂ (в коллекции А.А. Городинского), Барабаш-Левада, в почвенную ловушку, 10.07-5.08.2004, А.А. Городинский; 1 ♂ (в коллекции С.Н. Иванова), около 40 км северо-западнее Уссурийска, окрестности Чернятино, гора Синеловка, 18.05.2023, С.Н. Иванов.

Сравнительный материал. Голотип (♂), и два паратипа (♂ и ♀), *Byrrhus sochondensis* Tshernyshev, 1999 (Рис. 3-4, 6-7) из коллекции Сибирского зоологического музея Института систематики и экологии животных СО РАН в Новосибирске.

Распространение. Известен по десяти экземплярам (самцам и самкам), собранным на юге Приморского края (смотри «Материал» + (Чернышёв, 2005, 2006, 2009)). Имаго встречаются со второй половины апреля до первой декады сентября. В горы поднимается примерно до 1600 м.

Этимология. Патроним. Вид назван в честь Сергея Николаевича Иванова — известного энтомолога из Владивостока, собравшего часть типовой серии этого нового таксона.

Благодарности. Авторы искренне признательны А.А. Городинскому (Москва) и С.Н. Иванову (Владивосток) за возможность изучать их энтомологические сборы, С.Э. Чернышёву (Новосибирск) за возможность исследовать типовые экземпляры *Byrrhus sochondensis*, а также М.А. Лазареву за доброжелательное внимание к нашей работе.

ЛИТЕРАТУРА

- Чернышёв С.Э. 2005. К фауне жуков-пилюльщиков (Coleoptera, Byrrhidae) Дальнего Востока России. [с. 151-155.] - Научные исследования природного комплекса Лазовского заповедника. Владивосток: Русский Остров. 334 с. (Труды Лазовского государственного природного заповедника им. Л.Г. Капланова. Выпуск 3).
- Чернышёв С.Э. 2006. Обзор фауны жуков-пилюльщиков (Coleoptera: Byrrhidae) России и сопредельных территорий. Таксономический состав. - Труды Русского энтомологического общества. 77: 287-293.
- Чернышёв С.Э. 2009. Семейство Byrrhidae - Пилюльщики. [с. 137-138] - Насекомые Лазовского заповедника. Владивосток: Дальнаука. 464 с. +

16 цв. вкл.

Jäger O., Pütz A. 2016. Family Byrrhidae Latreille, 1804. - Catalogue of Palaearctic Coleoptera. Volume 3. Leiden, Boston: Brill: 574-591.

Tshernyshev S.E., Pütz A. 1999. New data on the fauna of pill beetles (Coleoptera: Byrrhidae) of Russia. - Russian entomological journal. 8 (1): 15-22.



Рис. 1-2. *Byrrhus ivanovi* sp. n., самец, паратип из коллекции С.Н. Иванова: 1 - общий вид сверху; 2 - общий вид сбоку. Автор снимков: М.Э. Смирнов.



Рис. 3-4. *Byrrhus sochondensis* Tshernyshev, 1999, самец, голотип:
3 - общий вид сверху; 4 - общий вид сбоку. Автор снимков:
А.А. Гусаков.



Рис. 5-7. *Byrrhus* spp., эдеагус сверху: 5 – *B. ivanovi* **sp. n.**, паратип из коллекции С.Н. Иванова; 6 – *B. sochondensis* Tshernyshev, 1999, голотип; 7 – то же, паратип. Авторы снимков: М.Э. Смирнов, А.А. Гусаков.

Поступила / Received: 10.06.2024
Принята / Accepted: 23.07.2024

**A new species of *Litargus* Erichson, 1846 from Nicaragua
(Coleoptera: Mycetophagidae)**

J. Háva

Private Entomological Laboratory & Collection

Rýznerova 37/37, CZ- 252 62 Únětice u Prahy, Prague-west, Czech Republic

e-mail: jh.dermestidae@volny.cz

Key words: Taxonomy, new species, description, Coleoptera, Mycetophagidae, *Litargus*, Nicaragua.

Abstract: A new species *Litargus* (s. str.) *poggii* **sp. nov.** from Nicaragua is described, illustrated and compared with similar species.

Introduction

The genus *Litargus* Erichson, 1846 currently includes 71 species (Háva, 2022, 2024). Only two species are known from Nicaragua: *Litargus balteatus* LeConte, 1856 and *Litargus tetraspilotus* LeConte, 1856 (Háva, 2022).

During the determination of some unidentified material deposited in Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy a new species from Nicaragua was found and is described here.

Material and methods

The material is deposited in the following collections:

JHAC - Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-West, Czech Republic;

MCSN - Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy (R. Poggi).

The size of beetles or of their body parts can be useful in species recognition and thus, the following measurements were made:

total length (TL) - linear distance from anterior margin of head to apex of elytra.

J. Háva

elytral width (EW) - maximum linear transverse distance.

Specimens of the presently described species are provided with red, printed label with text as follows: “HOLOTYPE (or PARATYPE) *Litargus* (s. str.) *poggii* sp. nov. Jiří Háva det. 2024”.

Results

Genus *Litargus* Erichson, 1846

Litargus (*Litargus*) *poggii* sp. nov.

Figs 1-4

Description. Female. Body measurements TL 1.8-1.9 mm, EW 1.0 mm; oblong-oval; weakly convex dorsally, weakly glossy; brown, covered with brown recumbent setation; elytra brownish-black with yellow patterns covered by yellow setation.

Head brown, with dense and coarse punctures; covered by yellow, recumbent setation; labrum brown; eyes prominent laterally in dorsal view, coarsely faceted and slightly emarginate near antennal insertions; antennae with 11 antennomeres, entirely brown with brown setation, antennal club with three antennomeres (Fig. 3); palpomeres brown, apical maxillary palpomere large, cylindrical.

Pronotum brown with yellowish lateral parts covered by yellow setation and with large brown spot discally, convex dorsally, rugose, with large and dense punctures, other parts covered with brown recumbent setation; widest at base, gradually narrowed anteriorly; anterior margin slightly arcuate; lateral sides roundly arcuate; basal margin sinuate, without short and circular grooves on subbasal parts.

Scutellum small, brownish-black, with short recumbent yellow setation.

Elytra dark brownish-black with yellow patterns, covered by brown recumbent setation, patterns covered by yellow setation, elongate, subparallel-sided, narrowed from apical 1/4 part to apex (Figs 1-2). Epipleuron brownish-black, covered with brown recumbent setation.

Meta-meso ventrite brown, with yellow recumbent setation, finely punctate.

J. Háva

Legs entirely light brown with light brown spines, covered with yellow recumbent setation. Tibiae with long brown spines apically.

Abdomen with visible ventrites brown, finely punctate, covered with yellow recumbent setation. Pygidium brown, covered with yellow recumbent setation.

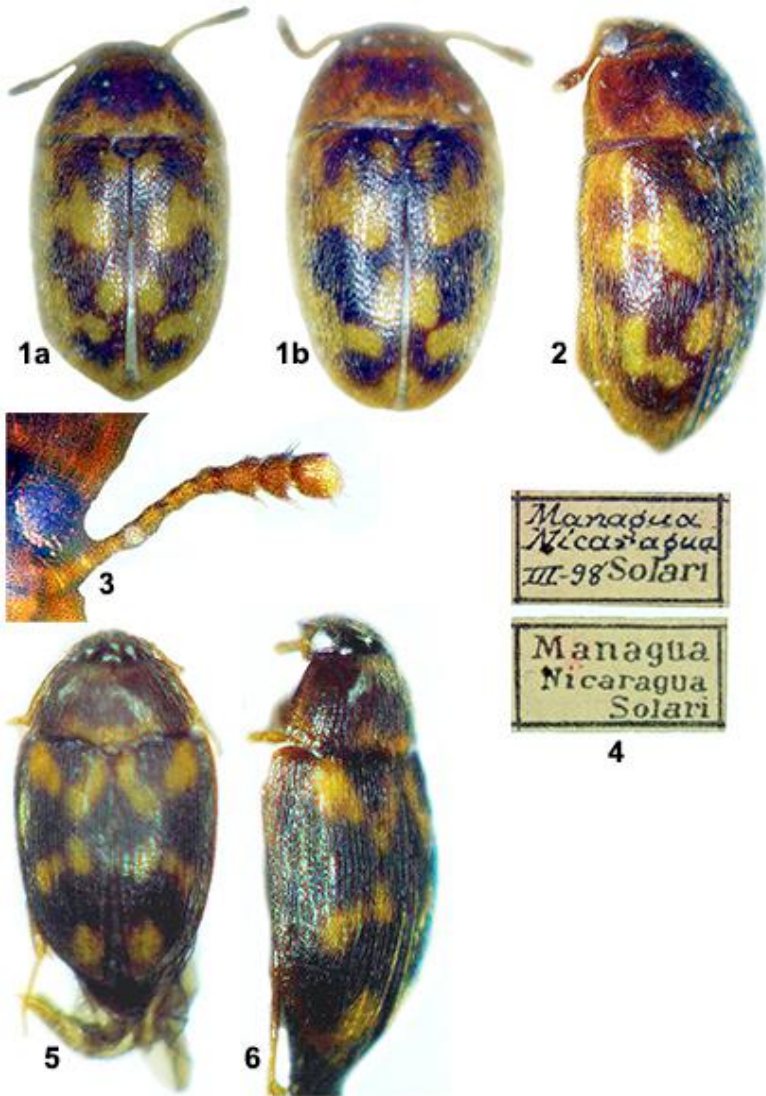
Male. Unknown.

Differential diagnosis. The new species differs from other known Neotropical species, especially the similar species *Litargus* (s. str.) *peruanus* Háva, 2024 by the colour of the pronotal and elytral patterns and the structure of the antennae.

Type material. Holotype (♀): “Managua, Nicaragua, III-[18]98, Solari” / “Museo Civico di Genova” - MCSN. Paratypes (3 ♀♀): same data as holotype - 2 MCSN, 1 JHAC.

Etymology. Patronymic, dedicated to my friend and curator of Coleoptera in MCSN, Roberto Poggi.

Acknowledgements. I are very obliged to Roberto Poggi (MCSN) for loaning me the interesting material and to Larry G. Bezark (California, U.S.A.) for English revision to the manuscript.



Figs. 1-4. *Litargus* (s. str.) *poggi* sp. nov.: 1a - habitus, dorsal aspect; 1b - habitus, dorsal aspect, variability; 2 - habitus, lateral aspect; 3 - antenna; 4 - labells.

Figs. 5-6. *Litargus* (s. str.) *peruanus* Háva, 2024: 5 - habitus, dorsal aspect; 6 - habitus, lateral aspect.

REFERENCES

- Háva J. 2022. World Catalogue of Mycetophagidae (Coleoptera: Tenebrionoidea). - Studies and Reports. Taxonomical Series. 18 (2): 287-331.
- Háva J. 2024. Three new Litargus Erichson, 1846 species from Peru (Coleoptera: Mycetophagidae). - Humanity space. International almanac. 13 (1): 13-20.

Received: 02.02.2024

Accepted: 15.07.2024

Further addition to the Ichneumonidae (Hymenoptera) fauna of Iran

R. Jussila¹, H. Sakenin², N. Samin³, E. Ruíz Cancino⁴

¹Zoological Museum, Section of Biodiversity and Environmental Sciences,
Department of Biology, FI-20014 University of Turku, Finland
e-mail: reijo.jussila@utu.fi

²Department of Plant Protection, Qaemshahr Branch, Islamic Azad University,
Qaemshahr, Iran
e-mail: hchelave@yahoo.com

³Young Researchers and Elites Club, Science and Research Branch, Islamic Azad University,
Tehran, Iran
e-mail: n_samin63@yahoo.com

⁴División de Estudios de Postgrado e Investigación, Universidad Autónoma de Tamaulipas,
Tamaulipas, Mexico
e-mail: eruiz@docentes.uat.edu.mx

Key words: Ichneumonoidea, ichneumonid wasps, species diversity, new records, Iran.

Abstract: In this faunistic paper, 24 species of Ichneumonidae (Hymenoptera) in 22 genera and 13 subfamilies were collected and determined from different regions of Iran, which among them, seven species are new country records: *Allomacrus arcticus* (Holmgren, 1880) (Cyllocerinae), *Ctenochira xanthopyga* (Holmgren, 1857) (Tryphoninae), *Euceros kiushuensis* Uchida, 1958 (Eucerotinae), *Mesostenus funebris* Gravenhorst, 1829, *Trychosis gradaria* (Tschek, 1871) (Cryptinae), *Metopius (Ceratopius) mediterraneus* Clément, 1930 (Metopiinae), and *Rhimphoctona (Xylophylax) lucida* (Clément, 1924) (Campopleginae).

Introduction

The Ichneumonidae (Hymenoptera: Ichneumonoidea), known as Darwin wasps, is a comparatively large clade of cosmopolitan parasitoid wasps (Quicke 2015; Klopstein *et al.* 2019). This family comprises over than 25,000 valid species distributed along 42 subfamilies (Yu *et al.* 2016; Bennett *et al.* 2019). Ichneumonid wasps are solitary parasitoids that mainly attack larvae and pupae of Lepidoptera, Coleoptera and Hymenoptera, many of them constitute important agricultural pests (Gauld 1991; Quicke 2015;

Belokobylskij and Lelej 2019).

The family Ichneumonidae of Iran has not been studied enough, although it is one of the most interesting places in the Palaearctic Region, due to having an extremely varying topography and various kinds of climates. In the first catalogue of the Iranian Ichneumonidae (Kolarov & Ghahari, 2005), 144 species were listed, and the updated catalogue from Yu et al. (2016) comprises only 622 species. The goal of this research is to study the fauna of Iranian Ichneumonidae and introducing seven new country records.

Material and methods

The specimens of this faunistic investigation were collected by sweeping net and Malaise traps from different areas of Iran. The collected materials were sorted to subfamily based on Broad (2015) and Broad et al. (2018), and genus level by Townes (1969, 1970a, b, 1971). The determined specimens were confirmed by the first author and some other authorized taxonomists. Most of the materials are preserved in the insect collection of Qaemshahr Islamic Azad University, and some others in private collection of the first author. Here we follow Yu et al. (2016) for nomenclature, classification, and distributional and host data.

Results

In total, 24 species of Ichneumonidae under 12 subfamilies, Adelognathinae, Banchinae, Campopleginae, Cremastinae, Cryptinae, Ctenopelmatinae, Cylokeriinae, Eucerotinae, Ichneumoninae, Mesochorinae, Metopiinae, Orthocentrinae and Tryphoninae were collected and determined from different regions of Iran.

Subfamily Adelognathinae Thomson, 1888

Genus *Adelognathus* Holmgren, 1857

***Adelognathus brevicornis* Holmgren, 1857**

Material examined: Golestan province, Golestan National Park, 3♀♀, August 2014. Mazandaran province, Sari, Semeskandeh, 1♀, September 2019.

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

General distribution: Austria, Bulgaria, Canada, Finland, France, Georgia, Germany, Ireland, Norway, Poland, Romania, Russia, Sweden, Ukraine, United Kingdom, United States of America.

Host records: Unknown.

Subfamily Banchinae Wesmael, 1845

***Glypta sculpturata* Gravenhorst, 1829**

Material examined: Guilan province, Lahijan, 1♂, June 2015.

General distribution: Austria, Belgium, Bulgaria, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Moldova, Poland, Romania, Russia, Spain, Sweden, Switzerland, United Kingdom.

Host records: *Ematurga atomaria* (Linnaeus) (Lepidoptera: Geometridae).

Subfamily Campopleginae Förster, 1869

Genus *Olesicampe* Förster, 1869

***Olesicampe longipes* (Müller, 1776)**

Material examined: East Azarbayjan province, Bonab, Chopoghloo, 1♂, September 2016.

General distribution: Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Netherlands, Poland, Romania, Russia, Sweden, United Kingdom.

Host records: Unknown.

Genus *Rhimphoctona* Förster, 1869

***Rhimphoctona (Xylophylax) lucida* (Clément, 1924)**

Material examined: Ardebil province, Bilehsavar, 2♂♂, 3.vii.2017.
New record for the fauna of Iran.

General distribution: Austria, Bulgaria, China, France, Germany, Hungary, Italy, Montenegro, Poland, Russia, Serbia, Switzerland.

Host records: *Monochamus saltuarius* Gebler, *Tetropium duscum* (Fabricius), and *Tetropium gabrieli* Weise (Coleoptera: Cerambycidae).

Subfamily Cremastinae Förster, 1869

Genus *Cremastus* Gravenhorst, 1829

***Cremastus dalmatinus* Strobl, 1904**

Material examined: Chaharmahal-Bakhtiari province, Lordegan, 2♀♀, August 2015.

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

General distribution: Romania, Russia, Tajikistan, Turkey, former Yugoslavia.

Host records: Unknown.

Subfamily Cryptinae Kirby, 1837

Genus *Hoplocryptus* Thomson, 1873

***Hoplocryptus magrettii* (Kriechbaumer, 1893)**

Material examined: East Azarbayjan province, Marand, Darandash, 2♂♂, September 2016.

General distribution: Austria, France, Germany, Hungary, Italy, Poland, Romania, Spain, Switzerland, Turkey.

Host records: *Osmia inermis* (Zetterstedt) (Hymenoptera: Apidae).

Genus *Mesostenus* Gravenhorst, 1829

***Mesostenus funebris* Gravenhorst, 1829**

Material examined: Mazandaran province, Behshahr, 2♀♀, July 2017. *New record for the fauna of Iran.*

General distribution: Austria, Azerbaijan, former Czechoslovakia, France, Germany, Hungary, Italy, Japan, Poland, Romania, Russia, Spain.

Host records: *Zygaena lonicerae* (Scheven) (Lepidoptera: Zygaenidae).

Genus *Oresbius* Marshall, 1867

***Oresbius galactinus* (Gravenhorst, 1829)**

Material examined: Lorestan province, Aligoodarz, 2♀♀, June 2018.

General distribution: Austria, Belgium, Bulgaria, Finland, France, Germany, Hungary, Ireland, Korea, Lithuania, Pakistan, Poland, Switzerland, United Kingdom.

Host records: *Deilephila elpenor* (Linnaeus) (Lepidoptera: Sphingidae), and *Synanthedon tipuliformis* (Clerck) (Lepidoptera: Sesiidae).

Genus *Polytribax* Förster, 1869

***Polytribax rufipes* (Gravenhorst, 1829)**

Material examined: Zanjan province, Khorram-Darreh, 2♂♂, July 2015.

General distribution: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Finland, France, Germany, Hungary, Ireland, Italy, Moldova, Poland, Romania, Spain, Switzerland, Turkey, Ukraine, United Kingdom.

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

Host records: *Bupalus piniarius* (Linnseus), *Macaria liturata* (Clerck) (Lepidoptera: Geometridae), and *Zysandra coridon* (Poda) (Lepidoptera: Lycaenidae).

Genus *Trychosis* Förster, 1869

***Trychosis gradaria* (Tschek, 1871)**

Material examined: West Azarbayjan province, Mako, 1♀, September 2018. *New record for the fauna of Iran.*

General distribution: Austria, Finland, France, Germany, Hungary, Italy, Moldova, Romania, Spain, Sweden, Switzerland.

Host records: Unknown.

Subfamily Ctenopelmatinae Förster, 1869

Genus *Barytarbes* Förster, 1869

***Barytarbes flavicornis* (Thomson, 1892)**

Material examined: Khorasan-e Razavi province, Ferdos, 3♀♀, August 2013. Semnan province, Shahrood, Jangal-e Abr, 2♀♀, July 2018.

General distribution: Afghanistan, Austria, Bulgaria, former Czechoslovakia, France, Germany, Hungary, Netherlands, Poland, Russia, Spain, Switzerland, Turkey, Ukraine, United Kingdom.

Host records: Unknown.

Genus *Phobetres* Förster, 1869

***Phobetres chrysostomus* (Gravenhorst, 1820)**

Material examined: Hamedan province, Gol-Tappeh, 2♀♀, 1♂, September 2015.

General distribution: Belgium, Bulgaria, Finland, France, Georgia, Germany, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Russia, Sweden, Ukraine, United Kingdom.

Host records: Unknown.

Genus *Trematopygus* Holmgren, 1857

***Trematopygus melanocerus* (Gravenhorst, 1829)**

Material examined: Guilan province, Langrood, Liseh-Rood, 1♀, May 2014.

General distribution: Austria, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Italy, Lithuania, Moldova, Netherlands, Norway, Poland, Russia, Switzerland, United Kingdom.

Host records: Unknown.

Subfamily Cyllocerinae Wahl, 1990

Genus *Allomacrus* Förster, 1869

***Allomacrus arcticus* (Holmgren, 1880)**

Material examined: Isfahan province, Shahreza, 1♂, May 2013; Chaharmahal-Bakhtiari province, Lordegan, 2♂♂, 1♀, August 2015.

New record for the fauna of Iran.

General distribution: Austria, Azerbaijan, Bulgaria, Canada, Finland, France, Georgia, Germany, Norway, Poland, Russia, Sweden, Switzerland, Ukraine, United States of America.

Host records: Unknown.

Subfamily Eucerotinae Viereck, 1919

Genus *Euceros* Gravenhorst, 1829

***Euceros kiushuensis* Uchida, 1958**

Material examined: Alborz province, Nazar-Abad, 1♀, June 2013.

New record for the fauna of Iran.

General distribution: China, Germany, Hungary, Italy, Japan, Korea, Poland, Romania, Russia, Switzerland, Ukraine.

Host records: *Phobocampe uncinata* (Gravenhorst) (Ichneumonidae: Campopleginae).

Subfamily Ichneumoninae Latreille, 1802

Genus *Dicaelotus* Wesmael, 1845

***Dicaelotus parvulus* (Gravenhorst, 1829)**

Material examined: East Azarbayjan province, Absh-Ahmad, 2♂♂, 21.v.2016, det. A.M. Tereshkin.

General distribution: Andorra, Austria, Belgium, Bulgaria, Finland, France, Germany, Latvia, Poland, Romania, Spain, Sweden, Turkmenistan, United Kingdom.

Host records: *Exoteleia dodecella* (Linnaeus) (Lepidoptera: Gelechiidae), *Plutella xylostella* (Linnaeus) (Lepidoptera: Plutellidae) and *Lobesia botrana* (Denis and Schiffermüller) (Lepidoptera: Tortricidae).

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

Genus *Epitomus* Förster, 1869

***Epitomus infuscatus* (Gravenhorst, 1829)**

Material examined: Kurdistan province, Bijar, 1♀, June 2016, det. A.M. Tereshkin.

General distribution: Andorra, Austria, Bulgaria, Czech Republic, Finland, France, Germany, Ireland, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden, United Kingdom.

Host records: *Elachista humilis* Zeller (Lepidoptera: Elachistidae).

Subfamily Mesochorinae Förster, 1869

Genus *Cidaphus* Förster, 1869

***Cidaphus atricilla* (Haliday, 1838)**

Material examined: West Azarbayjan province, Salmas, 1♀, August 2015.

General distribution: Austria, China, Finland, Germany, Japan, Latvia, Lithuania, Mongolia, Poland, Russia, Switzerland, Ukraine, United Kingdom.

Host records: *Enicospilus* sp. (Hymenoptera: Ichneumonidae).

Subfamily Metopiinae Förster, 1869

Genus *Metopius* Panzer, 1806

***Metopius (Ceratopius) mediterraneus* Clément, 1930**

Material examined: Ardebil province, Bilehsavar, 2♀♀, 3.vii.2017.
New record for the fauna of Iran.

General distribution: Armenia, Austria, Italy, Kazakhstan, Norway, Poland, Russia, Ukraine.

Host records: Unknown.

Genus *Triece* Townes, 1946

***Triece rufimitranae* Aeschlimann, 1973**

Material examined: West Azarbayjan province, Naqadeh, 1♀, July 2015.

General distribution: Bulgaria, Czech Republic, France, Moldova, Norway, Poland, Russia, Switzerland, Ukraine.

Host records: *Zeiraphera rufimitrana* (Herrich-Schäffer) (Lepidoptera: Tortricidae).

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

Subfamily Neorhacodinae Hedicke, 1922

Genus *Neorhacodes* Hedicke, 1922

***Neorhacodes enslini* (Ruschka, 1922)**

Material examined: Mazandaran province, Tonekabon, Jangal-e 2000, 2♀♀, June 2015. *New record for the fauna of Iran.*

General distribution: Austria, Belgium, Bulgaria, Cyprus, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Poland, Russia, Spain, United Kingdom.

Host records: *Spilomena differens* Blüthgen, *Spilomena enslini* Blüthgen, and *Spilomena troglodytes* Vander Linden (Hymenoptera: Crabronidae).

Subfamily Orthocentrinae Förster, 1869

Genus *Aperileptus* Förster, 1869

***Aperileptus impurus* Förster, 1871**

Material examined: Kurdistan province, Qorveh, 1♂, 1♀, September 2013.

General distribution: Austria, Bulgaria, former Czechoslovakia, Finland, France, Germany, Hungary, Ireland, Lithuania, Norway, Poland, Romania, Sweden, United Kingdom.

Host records: *Anomalomyia guttata* (Hutton) (Diptera: Mycetophilidae).

Subfamily Tryphoninae Shuckard, 1840

Genus *Ctenochira* Förster, 1869

***Ctenochira xanthopyga* (Holmgren, 1857)**

Material examined: East Azarbayjan province, Absh-Ahmad, 2♀♀, 21.v.2016. *New record for the fauna of Iran.*

General distribution: Austria, Belgium, Bulgaria, former Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Mongolia, Netherlands, Norway, Poland, Russia, Sweden, Ukraine, United Kingdom.

Host records: Unknown.

Genus *Phytodietus* Gravenhorst, 1829

***Phytodietus astutus* Gravenhorst, 1829**

Material examined: West Azarbayjan province, Miandoab, Hesarlu, 1♂, 1♀, April 2013.

General distribution: Bulgaria, France, Germany, Ireland, Italy, Sweden, United Kingdom.

Host records: *Agonopterix heracliana* (Linnaeus) (Lepidoptera: Depressariidae).

Acknowledgements. The authors are grateful to E. Diller (Germany), D.R. Kasparyan (Russia) and V.I. Tolkanitz (Ukraine) for scientific cooperation in this project. This research was supported by Islamic Azad University and University of Turku.

REFERENCES

- Belokobylskij S.A., Lelej A.S. 2019. Annotated catalogue of the Hymenoptera of Russia. Volume II. Apocrita: Parasitica. - Proceedings of the Zoological Institute of the Russian Academy of Sciences, Supplement. 8. 594 pp.
- Bennett A.M.R., Cardinal S., Gauld I.D., Wahl D.B. 2019. Phylogeny of the subfamilies of Ichneumonidae (Hymenoptera). - Journal of Hymenoptera Research. 71: 1-156. DOI: 10.3897/jhr.71.32375
- Broad G.R. 2015. Identification key to the subfamilies of Ichneumonidae (Hymenoptera). URL: https://nocturnalichs.myspecies.info/files/Ich_subfamily_key_April_2015.pdf
- Broad G.R., Shaw M.R., Fitton M.G. 2018. Ichneumonid Wasps (Hymenoptera: Ichneumonidae): Their Classification and Biology. - Handbooks for the identification of British Insects. 7 (12): 1-424.
- Gauld I.D. 1991. The Ichneumonidae of Costa Rica, 1. Introduction, keys to subfamilies, and keys to the species of the lower Pimpliform subfamilies Rhysinae, Poemeniinae, Acaenitinae and Cylocerinae. - Memoirs of the American Entomological Institute (Gainesville). 47, pp. 1-589.
- Klopfstein S., Santos B.F., Shaw M.R., Alvarado M., Bennett A.M., Dal Pos D., Giannotta M., Herrera Florez A.F., Karlsson D., Khalaim A.I., Lima A.R., Mikó I., Sääksjärvi I.E., Shimizu S., Spasojevic T., van Noort S., Vilhelmsen L., Broad G.R. 2019b. Darwin wasps: A new name heralds renewed efforts to unravel the evolutionary history of Ichneumonidae. - Entomological Communications. 1: ec01006.
- Kolarov J., Ghahari H. 2005. A catalogue of Ichneumonidae (Hymenoptera) from Iran. - Linzer Biologische Beiträge. 37 (1): 503-532.
- Quicke D.L.J. 2015. The braconid and ichneumonid parasitoid wasps: Biology, systematics, evolution and ecology. Chichester: Wiley Blackwell. 688 pp.
- Townes H.K. 1969. The genera of Ichneumonidae, Part 1. - Memoirs of the American Entomological Institute. 11: 1-300.
- Townes H.K. 1970a. The genera of Ichneumonidae, Part 2. - Memoirs of the American Entomological Institute. 12: 1-537.
- Townes H.K. 1970b. The genera of Ichneumonidae, Part 3. - Memoirs of the American Entomological Institute. 13: 1-307.
- Townes H.K. 1971. The genera of Ichneumonidae, Part 4. - Memoirs of the

R. Jussila, H. Sakenin, N. Samin, E. Ruíz Cancino

American Entomological Institute. 17: 1-372.

Yu D.S., van Achterberg, C., Horstmann K. 2016. Taxapad 2016, Ichneumonoidea 2015, Database on flash-drive. Ottawa, Ontario, Canada.

Received: 11.03.2024

Accepted: 15.07.2024

**Taxonomy structure of *Agapanthia villosoviridescens* (DeGeer, 1775)
(Coleoptera, Cerambycidae)**

M.A. Lazarev

Free Economic Society of Russia, Department of Scientifics Conferences and
All-Russian Projects

Tverskaya str., 22a, Moscow, 125009, Russia

e-mail: humanityspace@gmail.com, cerambycidae@bk.ru

Key words: Coleoptera, Cerambycidae, taxonomy, zoogeography, key to
subspecies, new status, new synonym, new subspecies.

Abstract: *Agapanthia (Eoptes) helianthi* Plavilstshikovi, 1935, *A. (E.) subnigra*
Pic, 1890, *A. (E.) gazanchidisi* Lazarev, 2021 and *A. (E.) markusi* Rapuzzi, Sama
& Kotán, 2013 are downgraded to subspecies rank. A new synonym is proposed:
A. subnigra Pic, 1890 = *A. villosoviridescens* var. *subchalybaea* Reitter, 1898,
syn. n. Four new subspecies are described: *A. (E.) v. murzini* **ssp. n.** (northern
Armenia), *A. (E.) v. syunica* **ssp. n.** (Syunik area in Armenia and neighbor
Azerbaijan lands), *A. (E.) v. giresunica* **ssp. n.** (Giresun prov. in Turkey) and
A. (E.) v. shankhizai **ssp. n.** (Denizli prov. in Turkey). A subspecies key
is proposed.

Introduction

Agapanthia (Eoptes) villosoviridescens (DeGeer, 1775) is
one of the most common species in Eurasia with very big area. But
great individual variability made extremely difficult the adequate
separation of geographic forms. Here a subspecies structure of the
taxon is proposed, and several similar species are downgraded to
subspecies rank.

Materials and methods

Material was collected manually. Specimens used in
morphological studies were killed by ethyl acetate. All photographs
were taken with Canon PowerShot G10 digital camera equipped with
Cannon Zoom lens 5X IS 6.1-30.5 mm 1:2.8-4.5 and microscope
AmScope SM745NTP. The illustrations were edited with
Adobe Photoshop 7.0 and Helicon Focus 3.20.

M.A. Lazarev

Acronyms of collections:

AG - collection of A.I. Gubin (Donetsk)

AS - collection of A.V. Shamaev (Moscow)

ES - collection of E.V. Shakhiza (Moscow)

MD - collection of M.L. Danilevsky (Moscow)

ML - collection of M.A. Lazarev (Moscow)

MNHN - collection of Muséum national d'Histoire naturelle (Paris)

SM - collection of S.V. Murzin (Moscow)

VG - collection of V.Yu. Gazanchidis (Moscow)

VU - collection of V.E. Ustinov (Moscow)

SMNH - collection of Swedish Museum of Natural History (Stockholm)

SZM - collection of Siberian Zoological Museum (Novosibirsk)

ZMM - collection of Zoological Museum of Moscow University

Results

***Agapanthia (Eoptes) villosoviridescens* (DeGeer, 1775)**

I accept the species with 11 subspecies:

1. *A. (E.) v. villosoviridescens* (Degeer, 1775)

Type locality. Not indicated in the original description; conditionally accepted as Western Europe.

2. *A. (E.) v. helianthi* Plavilstshikovi, 1935, stat. n.

Type locality. Russia, Krasnodar Region, Labinsk (according to lectotype designation by Danilevsky, 2009: “Labinskaya”).

3. *A. (E.) v. subnigra* Pic, 1890, stat. n.

Type locality. High mountains of Georgia, according to the holotype habitus and available material.

4. *A. (E.) v. syunika* ssp. n.

Type locality. Armenia, Syunik province, Goris environs, Svarants, 1880 m, 39°21'21''N, 46°12'27''E.

5. *A. (E.) v. murzini* ssp. n.

Type locality. Armenia, Gegharkunik province, Ayagut, 40°40'30.7251"N, 45°12'15.1285"E, 1420 m.

6. *A. (E.) v. lederi* Ganglbauer, 1884

Type locality. Azerbaijan, Talysh.

7. *A. (E.) v. hodeki* Danilevsky, 2018

Type locality. Northern Iran, Gilan province, Rostamabad environs (36°55'N, 49°23'E).

M.A. Lazarev

8. *A. (E.) v. giresunica* ssp. n.

Type locality. Turkey, Giresun province, Kumbet pass, 40°32'41.4294"N, 38°26'2.0124"E, 1700 m.

9. *A. (E.) v. shankhizai* ssp. n.

Type locality. Turkey, Denizli province, eastern edge of Denizli.

10. *A. (E.) v. gazanchidisi* Lazarev, 2021, stat. n.

Type locality. Eastern Greece, Dasochori environs, 40°53'48.67"N, 24°48'26.12"E.

11. *A. (E.) v. markusi* Rapuzzi, Sama & Kotán, 2013, stat. n.

Type locality. Greece, Epirus, Ioannina, 7 km SW Metsovo, 1360 m.

***Agapanthia (Epopetes) villosoviridescens* (DeGeer, 1775)**

Figs 1-27, Maps 1-4

Cerambyx villosa-viridescens DeGeer, 1775: 76 (no location, but apparently from Western Europe).

Type location. Not indicated in the original description; conditionally accepted as Western Europe.

Description. The species is characterized by usually totally black antennae without setae tufts; basal parts of antennal joints with fine pale pubescence, which can form white color; elytral setae patches more or less distinct, sometimes nearly totally obliterated, or just contrary very dense and contrast, totally hiding elytral surface; grey humeral stripe present or absent; elytral surface black, often with metallic luster; body length in males: 10.2-18.0 mm, body length in females: 11.0-21.5 mm.

Distribution. The northern most species of the genus, which was published for Karelia (Plavilstshikov, 1968) and Komi (Tatarinova et al., 2007 - Ukhta); eastwards it penetrates to Khakassia; southwards the species is distributed all over Caucasus with Transcaucasia and penetrates to Turkey; westwards the subspecies is distributed all over Europe including Iberian Peninsula.

Biology. The most common species of the genus; larvae develop in the stems of various herbaceous plants; were indicated: *Carduus*, *Cirsium*, *Urtica*, *Heracleum*, *Inula*, *Anthriscus*, *Angelica*, *Chaerophyllum*, *Peucedanum*, *Solidago*, *Rudbeckia*, *Eupatorium*, *Artemisia*, *Aster*, *Aconite*, *Senecio*, *Helleborus*, *Salvia*, *Gentiana*,

M.A. Lazarev

Adenophora, *Foeniculum*, *Lupinus*, *Veratrum* etc.; adults are active from May to July, although there are specimens dated September in the collections.

***Agapanthia (Epoetes) villosoviridescens villosoviridescens*
(DeGeer, 1775)**

Figs 1-4

- Cerambyx villosa-viridescens* DeGeer, 1775: 76 (no location, but apparently from Western Europe).
- Cerambyx virens* Voet, 1781: 22, pl. XX, fig. 98, unavailable name - "Europa".
- Cerambyx viridescens* Gmelin, 1790: 1864 - "Europa".
- Cerambyx lineatocollis* Donovan, 1797: 71 - "Isle of Ely, Cambridgeshire".
- Saperda latreille* Fischer von Waldheim, 1806: 17 - "Moscou".
- Saperda angusticollis* Gyllenhal, 1817: 189 - "Europa"; Goureau, 1868: cxiii.
- Agapanthia acutipennis* Mulsant, 1863: 357 - France, "les environs de Béziers".
- Agapanthia lineatocollis*, Mulsant, 1863: 358, part. - "n'est pas rare dans les environs de Lyon"; Gemminger & Harold, 1873: 3177 - "German. mer., Gallia"; Seidlitz, 1891: 850 (= *angusticollis* Gyll.) - "In Eur. bis Schwed. u. Finnland"; Ganglbauer, 1884: 542 (= *angusticollis* Gyll.) - "Nord- und Mitteleuropa, Caucasus"; Dyukin, 1912: 282 - Penza Region.
- Agapanthia angusticollis*, Mulsant, 1863: 360, part.; Obert, 1874: 136 - St. Petersburg.
- Agapanthia pyrenaica* Brisout de Barneville, 1863: 117 - France, "Canigou".
- Agapanthia nicaeensis* Chevrolat, 1881: xcvi - Gallia mer. (Nice).
- Agapanthia irrorata* var. *nicaeensis*, Ganglbauer, 1884: 539 - "Nizza".
- Saperda angustipennis*, Sonthonnax, 1889: 62 (misspelling) - "Grande-Chartreuse".
- Agapanthia villosoviridescens*, Reitter, 1898: 134 (= *lineatocollis* Don.) - "Nord- und Mitteleuropa, Kaukasus"; 1913: 66; Mosolov, 1902: 20 - Russia, Podolsk uezd; Sakharov, 1903: 66 - Russia, Saratov province; Zaitzev, 1906: 121 - Russia, Lykoshino station of the Nikolaev railway [about 58°06'N, 33°43'E]; Lebedev, 1906: 410 - Russia, Kazan province; Pomerantsev, 1908: 498 - Russia, Vologda province, Velsk (Voznesensko-Khoroshevskaya dacha and Priluki), [Now Arkhangelsk Region]; Miller & Zubowsky, 1910: 138 - Moldova, "Bendery"; 1917: 138 - Moldova, "Bendery"; Kiseritzky, 1915: 177 - Ukraine (Poltava); Jakobson, 1924: 239 (= *latreillei* Fischer von Waldheim, 1806); Kiseleva, 1926: 131 - Russia, Tomsk Region, Loskutovo; Winkler, 1929: 1213; Chernyshov, 1930: 12 - Russia, Kaluga province, Bryansk province, Moscow province; Heyrovský, 1931: 83 - Bulgaria ("Witoscha-Gebirge", "Rila-Gebirge", "Kresna-Defile", "Petritsch"); Plavilstshikov, 1932: 194; 1965: 416; Móczár, 1948: 92 - Slovakia, "Jahodná"; Fasulati, 1955: 140 - Ukraine (Uzhok, Uzhhorod, Velykyi Bychkiv, Lugi, Pasika, Svidovets); Breuning, 1961: 186, part. (= *lederi* Ganglb.) - "Europe, As. occ. et centr."; Paulus, 1968: 74 (larva); Fuchs & Breuning, 1971: 437 - "Anatolie: Yüksekova (Hakkari)"; Kostin,

M.A. Lazarev

1973: 225 - Northern half of Kazakhstan; Lobanov, 1973: 85 - Russia, Perm Region; Shernin, 1974: 181 - Russia, Kirov Region (Urzhum, Goltsy, Burmakino, Zlobino, Bolvanskaya); Villiers, 1978: 430, 433, part. (including var. *lederi* Ganglb.); Burakowski & Nowakowski, 1981: 214 Poland: "Mazovia", "Warsaw"; Soelen van & Markusse, 1983: 124 - "Netherlands"; Miroshnikov, 1984: 280 (larva); Biström & Väisänen, 1985: 156 - "Finland"; Tsherepanov, 1985: 246, part.; Volkovitsh, 1986: 101 - Russia, Belgorod Region, Forest on Vorskla; Novozhenov, 1987: 44 - Russia, Ilmen Nature Reserve; Bílý & Mehl, 1989: 134 - "Fennoscandia and Denmark", "Soviet Karelia", "The Caucasus and W. Siberia"; Zahaikévitch, 1991: 153 - mountain Crimea; Rabil, 1992: 148 - France, "Forêt de la Grésigne (Tarn)"; Bense, 1995: 400-401 - Western Europe; Carrière, 1996: 562 - France, "Lozère"; 2003: 257, 258 - France, "Pic de la Coquillade"; 2005: 468; 2009: 342 - France, "Monts d'Aubrac (Aveyron, Cantal, Lozère)"; 2012: 49 - France, "lac de Souveyrols (Canton de Nasbinals)"; Lagunov & Novozhenov, 1996: 64 - Russia, Ilmen Nature Reserve; Alexandrovitch et al., 1996: 48 - Belarus; Althoff & Danilevsky, 1997: 41; Kasatkin & Arzanov, 1997: 67, part. - Rostov Region, Krasnodar Territory, Karachay-Cherkessia, Kabardino-Balkaria; Sláma, 1998: 351 - Czech Republic, Slovakia; Kovács, 1998: 254 - Hungary; Dorofeev, 1998: 28 - Russia, Tula Region; 2003: 30 - Russia, Tula Region; Landemaine, 1999: 248 - France; Kalyuzhnaya et al., 2000: 193 - Russia (Volgograd, Tumak), Volgograd Region (Kamyshin District, Nature Park Shcherbakovskaya; Ilovlya District, Tryokhostrovskaya); Hasegawa, 2000: 13; Marquet, 2001: 116 - France, "Parc naturel régional de la Brenne (Indre)" Denton, 2002: 268 - England, "Middlesex"; Sheshurak & Sadovnichia, 2002: 242 - Ukraine, Chernigov Region; Inglebert, 2002: 100 - France, Paris, "Champs de mars"; Gouillard, 2003: 128 - France, "Gâtinais"; Sama, 2003: 93, part. - including "Russian Far East and Korean peninsula"; Brustel et al., 2003: 453 - France; Warzee & Drumont, 2004: 49 - "Belgique"; Karpinsky, 2003: 69 - Russia, Vladimir Region; Magdeev, 2003: 206 - Russia, Samara Region; 2007: 174 - Russia, Samara Region, Samarskaya Luka; Isaev et al., 2004: 41 - Russia: Chuvash Republic, Republic of Tatarstan, Ulyanovsk Region, Samara Region; Bolshakov & Dorofeev 2004: 23 - Russia, Tula Region; Negrobov et al., 2005: 601 - Russia, Voronezh Region; Dedyukhin et al., 2005: 311 - Russia, Udmurt Republic; Micas, 2005: 147 - France, "vallon de la Moulière (Alpes-de-Haute-Provence)"; Weitzel, 2005: 72 - Germany, "Mattheiser Wald"; Denux, 2005: 234 - France ("Parc naturel régional du Perche", "Saint-Pierre-la-Bruyère", "Forêt de Bellême", "Nogent-le-Rotrou"); Diego Barquín & Martínez-Porres Cáceres, 2005: 145 - Spain, "Palencia"; Sautière, 2005: 22 - France, "Vernou-sur-Brenne, La Ville-aux-Dames, Noizay (Indre-et-Loire)"; Allemand, Chevin & Withers, 2006: 281 - France, "Commune de Vénérieu (Isère)"; Debreuil, 2006: 32 - "Pyrénées-Orientales"; ACSN, 2007: 107 - France, "Aube: Piney, Rouilly-Sacey"; Migliaccio et al., 2007: 40 - Bulgaria; Simon, 2007: 155 - France,

“Domaine de Rochebois à Vitrac (Dordogne)”; Ehnström & Holmer, 2007: 26, 51, 61, 278-279 - Sweden, Denmark, Norway, Finland; Tatarinova et al., 2007: 283 - Russia, Komi (Syktyvkar, Shaitanovka, Ukhta); Gorbunov & Olshvang, 2008: 280 - Russia, South of the Urals; Peris-Felipo & al., 2008: 109 - France, “Parque Natural de La Tinença de Benifassà (Castellón)”; Mouthiez & Péru, 2008: 110 - France, Loiret; Kuleshov & Romanenko, 2009: 39 - Russia, Tomsk Region; Ermolaev & Georgi, 2009: 26 - Russia, Izhevsk; Runich, 2009: 58 - Russia, Saransk; Tsurikov, 2009 - Russia, Lipetsk Region; Humala & Polevoi, 2009: 60 - Russia, Republic of Karelia: Cherga river, Chumbozero, Steshevskaya; Krasnobayeva, 2009: 297 - Russia, Samara Region, Zhiguli State Natural Reserve (Bakhilova Polyana, Khmelevoy ravine, Kochkarka, Mt. Strel'naya); Gnjatović & Žikić, 2010: 113 - Serbia (“Niška banja”, “Niš; Novo Selo”, “Zlot”, “Batinac”); Serafim, 2010: 241 - Romania, Bulgaria (Varna); Özdikmen, 2010: 927, 932 - European Turkey; Bukejs, 2011: 18 - Latvia: “Butiški”, Vecstropi “valley of the Daugava”; Týr, 2011 - Czech Republic (“Blatno”, “Jesenice”, “Podbořanky, PR Rybníčky u Podbořánek”, “Žihle”); Antipova, 2011: 74 - Russia, Pskov Region; Bartenev & Terekhova, 2011: 139 - Left-bank Ukraine and Crimea; Danilevsky, 2012: 722 - excluding Korea; Zamoroka et al., 2012: 1167 - Western Podillya, Ukraine (Opillya, Roztocha, Holohory, Voronyaky, Medobory, East Pokuttya, Khotyn Eminence); Georgiev et al., 2013: 113 - Bulgaria, “Belasitsa Mt.”; Lacoste, 2013: 143 - France, “Puy-de-Dôme: Orléat”; Jałoszyński et al., 2014: 679; Švácha & Lawrence, 2014: 127 (morphology); Dobrosavljević & Mihajlović, 2014: 26 - Serbia; Pavićević, Ilić & Đurić, 2015: 85 - Serbia; Kulenko, 2015: 1104 - Russia, Samara Region; Molnar et al., 2016: 49 - Hungary (Fundoklia Valley); Siering & Shumka, 2016: 462 - “Albanien”; Cartier & Cartier, 2016: 232 - “Vienne: Quinçay”; Mazurov, 2017: 217 - Russia, Lipetsk Region, Krasnoye District (Leski, bank of the Don River; Maryinsky forest; Surki tract; Plyushchan; Byk tract, floodplain of the Chernavka stream; Verkhnee Bruslanovo); Sláma, 2017: 65 - “Bohemia, Terezín u Kunžaku”; Haack, 2017: 111 (plants); Haack et al., 2017: 81 (larva); Vitali, 2018: 114 - “Luxembourg”; Żurawlew & Melke, 2018: 86 - “Poland: Pleszew District (Wielkopolska-Kujawy Lowland)”; Karpiński et al., 2018: 90 - “East Kazakhstan”; Zamoroka, 2018: 684 - “The eastern Carpathian Mountains in Ukraine”; Touroult & al., 2019: 109 - France; Szczepański & Szczepański, 2019: 7 - “Poland: Wzgórza Trzebnickie”; Barševskis & Lecka, 2019: 283 - Latvia; Siering & Beier, 2019: 242 - Bulgaria; Micas & Van Meer, 2020: 140 - “France (Landes): Réserve Naturelle du Courant d’Huchet”; Weigel & Hartmann, 2020: 365 - Germany, Erfurt; Kutushev, 2020: 23 - Russia, Republic of Tatarstan; Aleksanov et al., 2020: 35 - Russia, Kaluga Region, Peremyshl District; Alekseev et al., 2020: 126 - Russia, Kaluga Region: Goritsy (53°34'53"N 35°38'08"E), Yagodnoe (53°32'53"N 35°38'47"E); Dovhaniuk & Zamoroka, 2020: 139 - Ukraine (Ternopol Region): National Park “Kremenetski Hory”; Bacal et al., 2020: 59 - Moldova (“Lozova”,

M.A. Lazarev

- “Bender”, “Bularda”, “Cornești”, “Vatici”, “Ivancea”); Siering & Rothe 2020: 274 - Estonia (“im Lahemaa-Nationalpark in Estland”, “Palmse”); Shin & al., 2021: 4 - “Czech Republic (Bohemia): České Budejovice”; Szafraniec & Łuszczak, 2021: 32 - “Western Beskid Mountains”; Alekseev, 2022: 8 - “Svetlogorsk Forest (Russia: Kaliningradskaya Oblast)”; Saikina et al., 2022: 815 - Russia, Omsk Region.
- Agapanthia* (s. str.) *villosoviridescens*, Pic, 1910: 97, part. (= *lineatocollis* Donovan. = *angusticollis* Gyll. = *lederi* Ganglb. = *acutipennis* Muls. = *pyrenaea* Bris. = *nicaeensis* Chev. = *subchalybaea* Reitt. = *subacuta* Pic); Aurivillius, 1923: 464 (= *angusticollis* Gyll. = *lineatocollis* Donovan. = *viridescens* Gmelin = *acutipennis* Muls. = *lederi* Gang. = *nicaeensis* Chev. = *pyrenaea* Bris. = *subacuta* Pic = *subchalybaea* Reitt.) - “Nord- und Mitteleuropa, Kaukasus, Sibirien”, “Turkestan”; Plavilstshikov, 1930b: 32, 40, part. (including var. *lederi* Ganglb.) - “Europa (von Schweden bis Spanien, Italien, Sizilien und dem Balkan), Rußland, Kaukasus, Transkaukasien, West-Sibirien (Petrovavlovsk)”; 1948: 168, part. - North Armenia, Sevan, Arax valley; (Europe, Caucasus, Western Siberia); 1968: 123, 157, part. (including var. *lederi* Ganglb.) - “In the European part of the Union, it is distributed everywhere, starting from Karelia-Vologda-Perm, all Ciscaucasia; in the Central Caucasus and Transcaucasia”, “Western Siberia, northwestern Kazakhstan. In Western Europe, it is distributed everywhere, from Finland and Scandinavia to the islands of the Mediterranean Sea”; Lobanov et al., 1982: 269 - from Europe to the Pacific Ocean, including Japan; Tsherepanov, 1984: 161, 162, 175 (= *daurica* Ganglb.), part. - from Atlantic to Pacific Ocean; Danilevsky & Miroshnikov, 1985: 386, 390, 391, part. (including Transcaucasia); Niisato, 2001: 15 - “continental side of the Palearctic Region”; Martynov & Pisarenko, 2004: 63 - Lugansk and Donetsk Regions; Bartenev, 2004: 41; 2009: 389 - Europe, Western Siberia, Caucasus, Transcaucasia, Northwestern Kazakhstan, Mongolia; Sheshurak et al., 2006: 268 - Ukraine, Chernigov Region.
- Agapanthia* (s. str.) *villosoviridescens* var. *nicaeensis*, Aurivillius, 1923: 466 - “Nizza”.
- Agapanthia* (s. str.) *villosoviridescens* var. *acutipennis*, Aurivillius, 1923: 466 - “Frankreich”.
- Agapanthia* (s. str.) *villosoviridescens* var. *pyrenaea*, Aurivillius, 1923: 466 - “Pyrenäen”.
- Agapanthia villosoviridescens*, Planet, 1924: 309; Colas, 1928: 179 - “forêt de Saint-Germain”; Perrier, 1964: 116; Sama, 1981: 503 - Italy; Cartier, 2002: 180 - France, “Rueil-Malmaison”.
- Agapanthia villosoviridescens* m. *acutipennis*, Breuning, 1961: 186.
- Agapanthia villosoviridescens* m. *pyrenaea*, Breuning, 1961: 186.
- Agapanthia irrorata* m. *nicaeensis*, Breuning, 1961: 184.
- Agapanthia helianthi*, Fomichev, 1983: 44, part. - Russia, (Republic of Kalmykia, Gorodovikovsk), (Rostov Region, Bolshiye Saly); Kalyuzhnaya et al., 2000: 193 - Russia, Volgograd Region (Tinguta), Kalmykia (Gorodovikovsk).
- Agapanthia dahli* (according to the oral communication by A. Shapovalov),

M.A. Lazarev

- Novozhenov, 1987: 45 - Russia, Ilmen Nature Reserve in the Chelyabinsk Region; Lagunov & Novozhenov, 1996: 64.
- Agapanthia villosovilidesvens*, Ohbayashi N. et al., 1992: 559 (misspelling).
- Agapanthia lineaticollis*, Matveev, 1998: 87 (misspelling), part. - Russia, Mari El.
- Agapanthia villosoviridescens*, Matveev, 1998: 87 (misspelling), part. - Russia, Mari El, Kirov Region, Chuvashia.
- Agapanthia subchalybaea*, Runich et al., 2000: 85, part. - Russia, Mount Mashuk near Pyatigorsk; Negrobov et al., 2005: 601, part. - Russia, Voronezh Region, Novousmansk District.
- Agapanthia villosoviridescens* var. *acutipennis*, Carrière, 2002: 211 - France: "Pic de la Coquillade (Hérault)".
- Agapanthia (Agapanthiella) villosoviridescens*, Pesarini & Sabbadini, 2004: 126; Egorov, 2005: 17 - Russia, Chuvash Republic; Shapovalov et al., 2006: 107 - Russia, Orenburg Region; Goggi, 2006: 320 - Italy, Valsassina (Lecco, Lombardia); 2007: 85 - Italy, Parco della Grigna Settentrionale (Lecco, Lombardia); Listvyagova et al., 2013: 28 - Russia, Republic of Khakassia, Krasnoyarsk Krai.
- Agapanthia (Epoptes) villosoviridescens*, Löbl & Smetana, 2010: 216, part.; Chyubchik, 2010: 117 - Moldova ("Chyncheshty distr., Saerata-Meresheni vill. env."), "Chyncheshty distr., Lozova vill. env., Kodry Reserve"; Özdikmen, 2010: 942 - European Turkey; Sama, Buse et al., 2010: 34, part. - "common in Europe, western Caucasus, Siberia eastward to Ussuri, unknown in Asia Minor and in other countries of Near East"; Zabaluev, 2010: 33 - Russia, "Engels, Saratov Province"; Sama & Rapuzzi, 2011: 142 - Italy (Alto Adige, Abruzzo, Basilicata, Calabria, Campania, Emilia, Friuli, Lazio, Liguria, Lombardia, Marche, Molise, Piemonte, Romagna, Sicilia, Toscana, Trentino, Umbria, Veneto, Venezia Giulia); Drumont & Leduc, 2011: 294, 295 - Belgium; Shapovalov, 2012: 188 - Russia east to Baikal, "Europe, Caucasus, Kazakhstan, probably also northwestern Mongolia"; Shapovalov & Filimonov, 2012: 102 - Russia, Chelyabinsk Region, Chernoborsky; Ilić & Ćurčić, 2013: 89 - "Serbia: Rtanj Mountain"; Ilić, Ćurčić & Stojanović, 2013: 123 - Serbia, "Tekija"; Rapuzzi et al., 2013: 584 - West Palaearctic region; Steiner & Schmid, 2013: 2 - "Griechenland"; Vukajlović & Živanović, 2014: 199 - "Gledić Mountains (Central Serbia)"; Reisdorf & al., 2015: 156 - France, "Marais de Montabé (Essonne)"; Klausnitzer & al., 2016: 558 - "Mitteleuropa"; Facon, 2016: 11 - France, Montreuillois; Dunska A. & Barševskis, 2018: 187 - Latvia; Georgiev et al., 2018: 106 - Bulgaria ("2 km SE of Debelt vill., near Sredetska Riv., 42°22.596'N, 27°16.338'E, 20 m a.s.l.", "2 km SE of Bistrets vill., near Sredetska Riv., 42°18.582'N, 27°02.371'E, 50 m a.s.l.", "1 km NE of Zidarovo vill., near Fakiyska Riv., 42°20.066'N, 27°24.780'E, 30 m a.s.l."); Georgiev et al., 2019: 18 - Bulgaria, "1 km NW of Gabrene vill., 41°22'41.76"N, 22°58'02.76"E, 280 m a.s.l."; Gorshkova et al., 2019: 35 - Russia, Saratov Region; Vlasov, 2019: 105 - Russia, Yaroslavl Region; Stolbov et al., 2019: 209 - Russia, Tyumen Region: "Surgutsky district (Yugansky NR)", "Tobolsky (Ovsyannikova, Penya)", "Yarkovsky

M.A. Lazarev

(Dubrovnoe)”, “Nizhnetavdinsky (vicinity of Lake Kuchak)”, “Tyumensky (Tyumen, Bogandinsky, Lake Lukashinskoye, Yantyk)”, “Yalutorovsky (Lake Singul, Moshkarinsky reserve, Novoatyalovo)”, “Isetsky (Bityuki)”, “Omutinsky (Dmitrievka) districts”; Gradinarov & Petrova, 2019: 70 - “Bulgaria: Vrachanski Balkan Nature Park”; 2020, 174 - “Bulgaria: Sarnena Sredna Gora Mountains”; Kasatkin, 2020: 234 - Russia, Ryazan Region; Egorov et al., 2020: 86 - Russia, Republic of Mordovia; Danilevsky, 2020: 303 - European Russia, Western and Eastern Siberia, Baltic states, Belarus, Moldova, Ukraine, Kazakhstan, Mongolia, Turkey, Western Europe; Lazarev, 2021: 32 (holotype) - Central Europe; Sakalian et al., 2021: 52 - Italy, Monte Sirente; Zamoroka, 2022: 64 - Ukraine; Gubin & Martynov, 2023: 168 - Lugansk Region: “Pridontsovskaya floodplain” Reserve; Donetsk Region: Yampol, Svyatogorsk, Bogorodichnoe, Dronovka, Donetsk botanical garden, regional landscape park “Donetsk kryazh”, Velikoanadolsky Forest, “Kamennye mogily” Reserve, Klinkino; Aleksandrowicz et al., 2023: 94 - Belarus.

Agapanthia (Agapanthiella) villosviridescens, Alekseev & Maryutin, 2019: 26 (misspelling) - Russia, Kaluga Region.

Agapanthia lederi, Bacal, 2020: 59 (= *helianthi* Flav.) - Moldova, “Zloți”.

Agapanthia villosviridescens subchalybaea, Bacal, 2020: 59 - Moldova, “Ivancea”.

Type location. Not indicated in the original description; conditionally accepted as Western Europe.

Description. Fine pale pubescence of basal parts of antennal joints can be very dense totally covering cuticle; basal parts of middle antennal joints very rare reddish; apical setae concentration of 3rd antennal joint usually indistinct; prothorax in males about as long as its basal width, and about as wide anteriorly, as posteriorly; in females prothorax transverse with wide hind part; pronotum with wide and dense central setae stripe; elytra less shining, but without microsculpture, usually with very dense pubescence, which can be grey, yellow or sometimes orange, often totally hiding elytral surface and defining its color; grey humeral elytral stripe absent; erect elytral setae usually long and dense; poorly pubescent dark specimens are also known, especially in Siberian part of its area, where it could be missed with *A. daurica*, but the later has rather big eyes; eyes of *A. (E.) v. villosviridescens* are very small, about as long as genae; erect elytral setae spread back to elytral apices; elytral apices never strongly attenuated, but can be sharpened or rounded; the smallest male among available specimens is 10.2 mm (Kyiv env.) long, the biggest female: 19.0 mm (Troitsk near Orenburg).

M.A. Lazarev

Material. *Agapanthia villosoviridescens* (Figs 1-4): 1 female, holotype of *Cerambyx villosoviridescens* DeGeer, 1775 preserved in SMNH with No: NHRS-JLKB000073628; **Russia: Leningrad Region.** 1 male, Sankt-Petersburg, Gatchina, 31.5.1901 - ZMM; **Moscow Region.** 1 female, Donino, 6.8.1952 - ZMM; 3 males, Podrezkovo, 7.6.1952 - ZMM; 1 female, Podrezkovo, 25.6.1952 - ZMM; 1 male, Podrezkovo, 6.1954 - ZMM; 1 male, Bratovshchina - ZMM; 2 males, Bratovshchina, 22.6.1931, 7.6.1933 - ZMM; 1 male, Mytishchi, 20.7.1933, G. Kostylev - ZMM; 1 male, 4 females, Khrapunovo, 10.6.1993 - MD; 1 male, Chashnikovo, 11.7.1965, M. Danilevsky - MD; 1 male, Chashnikovo, 20.6.1972, Krivovyazyuk - MD; 1 male, Chashnikovo, 11.7.1970, Nikiforov - MD; 1 female, Zvenigorod, Nikolina Gora, 11.6.1944, Nikulin - MD; 1 female, Udelnaya, 55°38'22.66''N, 38°03'37.11''E, 585 m, 3.6.2012, M. Danilevskaya - MD; 1 male, Bykovo, 55°38'5''N, 38°4'E, 130 m, 11.6.2012, G. Danilevskaya - MD; 1 female, Bykovo, 55°38'5''N, 38°4'E, 130 m, 16.6.2012, M. Danilevsky - MD; 1 male, Bykovo, 55°38'5''N, 38°4'E, 130 m, 25.6.2012, M. Danilevsky - MD; 1 female, Dedovsk District, Miitovskaya station, 1.6. 1986, A.V. Shamaev - AS; 1 female, southern suburbs Kaliningrad [Korolev], 9.5.1982, A.V. Shamaev - AS; 1 male, 3 km N Volodarskogo, 30.5.1979, E. Shankhiza - ES; 1 male, Kyiv highway, 1 km from the road ring, 16.5.1984, E. Shankhiza - ES; 1 male, Raduga, 28.6.1997, E. Shankhiza - ES; 1 male, 2 females, Orekhovo-Zuyevesky District, 3 km S Antsiferovo, 7.6.1999, E. Shankhiza - ES; 1 female, Istra District, Manikhino, 27.5.2005, E. Shankhiza - ES; 1 female, Istra Distr., Zenkino, 7.6.2011, M. Danilevskaya - MD; 1 female, Istra Distr., Pavlovskaya Sloboda, 16.6.2005, A. Vdovichenko - ML; 1 female, Istra Distr., Pavlovskaya Sloboda, 16.6.2005, V. Kadnikov - ML; 1 female, Istra Distr., Pavlovskaya Sloboda, 19.6.2005, M. Lazarev - ML; 1 male, Istra Distr., Pavlovskaya Sloboda, 23.6.2005, M. Lazarev - ML; 1 male, 1 female, S of Chekhov, Safonovo, 55.0619°N, 37.4144°E, 12.6.2011 - SM; 1 male, 2 females, S of Chekhov, Safonovo, 55.0619°N, 37.4144°E, 4-5.6.2011 - SM; **Ivanovo Region.** 1 male, Rubskoe Lake, 6.1983, A. Tikhomirov - ML; **Kaluga Region.** 3 males, 1 female, 1 male, Kremenki, 54°54'24.36''N, 37°07'41.92''E, 14.7.1995, V.E Ustinov - ML; 1 female, Kremenki, 09.6.1991,

M.A. Lazarev

26.6.2005, V. Ustinov leg. - VU; 1 male, Vorobi, 27.5.2013, O. Kuryшева - MD; 3 males, 1 female, Vorobi, 55°9'22''N, 36°46'14''E, 17.6.2023, M. Danilevskaya - MD; 2 males, 2.5 km NW Vorobi, 55°9'23''N, 36°46'12''E, 151 m, 17.6.2023, M. Lazarev - ML; 2 males, 2 km NW Vorobi, 55°8'56.30''N, 36°46'34''E, 144 m, 17.6.2023, M. Lazarev - ML; 1 male, Kozelsk, 150 m, 28.6.1993, M. Danilevsky - MD; **Kursk Region.** 2 males, Central Black Earth Nature Reserve, Kazatskoe, 17.6.1990, I. Kostina - MD; **Belgorod Region.** 1 male, Borisovka, 12.6.1975 - MD; **Voronezh Region.** 1 female, Usmansky Bor, 25 km NN Voronezh, 12.6.1988, M. Tsurikov - MD; 1 female, Novokhopersk Distr., Varvarino, 20.6.1988, I. Zykov - ML; **Lipetsk Region.** 1 male, 50 km NE Elets, 3 km N Lamskoe, 26.6.2010, M. Tsurikov - MD; **Ulyanovsk Region.** 3 males, 1 female, Radishchevo Distr., Atmaly Forest, 52°59'N, 48°01'E, 200 m, 14.6.2008, M. Danilevsky - MD; 4 males, 4 females, with the same label - ML; **Samara Region:** 1 male, 5 females, Ziguli Mts., Strelnaya Mt., 53°24'N, 49°42'E, 360 m, 4.6.2008, M. Danilevsky - ML; 2 males, Ziguli Mts., Strelnaya Mt., 53°24'N, 49°42'E, 360 m, 11.6.2008, 16.5.2010, M. Danilevsky - ML; **Saratov Region.** 1 female, Nikolaevskiy Gorodok, 1924 - ZMM; 1 male, Bolshaya Kamenka, 51°48.571'N, 45°42.724'E, 20-22-6-2013, V.E. Ustinov - ML; **Volgograd Region.** 1 male, Olkhovka, 1-3.6.1999, M. Danilevsky - MD; 1 male, Mikhaylovka District, Glinishche, 50°06'17''N, 43°31'58''E, 88 m, 17-19.6.2020, I. Melnik - VU; **Rostov Region.** 1 male, steppes near, Rostov-on-Don, 10-25.6.1995 - ML; **Krasnodar Region.** 1 female, Ubinskoe, 9.5.1976, M. Kravtchenko - MD; 1 female, Apsheronsk, 12.6.2010, 300 m, A. Bondarenko - MD; 1 male. Apsheronsk, Otdalenny, 18.6.1985, A.V. Shamaev - AS; 1 male, 2 females, Besstrashnoe, 44°13'30''N, 41°12'55''E, 800 m, 21.5.2016, M.L. Danilevsky - MD; 1 male, Caucasus, Psebay, 15.5.1911 - ZMM; 2 males, 5 female, Psebay, 44°10'24.35''N, 40°48'E, 860 m, 25.5.2016, M.L. Danilevsky - MD; **Lugansk Region.** 1 male, Voroshilovgrad [Lugansk], 16.6.1951, K. Arnoldi - ML; 3 males, 3 females, Luhansk Nature Reserve (Stanichno-Lugansk Nature Reserve), 10-14.06.2003, V.V. Martynov, T.A. Pisarenko - AG; **Donetsk Region.** 3 males (4.6.2004, 28.5.2010, 5.6.2012), 2 females (1.6.2010, 12.5.2012),

M.A. Lazarev

Donetsk, Donetsk Botanical Garden, A.I. Gubin - AG; 1 male (10.7.2000), 1 female (19.6.2003), Kramatorsk District, Bohorodychne, V.V. Martynov - AG; 1 male, Volnovakha District, Velikoanadolsky forest, 24.7.2000, V.V. Martynov - AG; 1 female, Volodarskoy District, Kamyana Mohyla reserve, 19.6.2004, V.V. Martynov - AG; 2 males, Kramatorsk District, Svyatogorsk, 12.6.2010; 1 female, Bakhmut District, Dronovka, 11.5.2012, V.V. Martynov - AG; 2 males, 1 female, Novoazovsk District, Klinkino, 11.6.2011, V.V. Martynov - AG; 1 female, Limansk District, Yampol, 24.5.2012, V.V. Martynov - AG; **Republic of Crimea.** 1 female, Feodosia District, Kurortnoe, 6.5.2010, V.V. Martynov leg. - AG; **Republic of Mordovia.** 1 male, Svetotekhnika, 18.5.2008, A.B. Ruchin - ML; 1 male, Turgenevo, 19.5.2008, A.B. Ruchin - ML; 1 male, Ekaterinovka, 29.5.2008, A.B. Ruchin - ML; 1 female, Chudino, 7.6.2008, A.B. Ruchin - ML; 1 female, Saransk, 24.6.2008, A.B. Ruchin - ML; **Samara Region.** 1 female, Samara, 10.6.2011, D. Magdeev - MD; 4 males, 2 females, Zhiguli, Bostanzhoglo - ZMM; 1 male, 1 female, Kinel Distr., Krasno-Samarskoe lesnichestvo, 25.6.2011, A. Tilli - MD; 1 female, Polyakov, 31.5.2004, D. Magdeev - MD; 1 male, Sukhaya Samarka, 16.6.2009, D. Magdeev - MD; 1 male, Zhiguli Nature Reserve, Strelnaya Mt., 16.5.2010, M. Danilevsky - ML; 1 male, 2 females, Zhiguli Nature Reserve, Strelnaya Mt., 53°24'N, 49°42'E, 360 m, 4.6.2008, M Danilevsky - ML; **Kirov Region.** 2 males, 1 female, Vyatka - ZMM; **Vologda Region.** 1 male, 1 female, Ustyuzhna, 21-22.6.2011, S. Neporotovsky - MD; **Republic of Tatarstan.** 2 females, 100 km E Kazan, 12.7.2005, M. Danilevsky - MD; 1 female, Mamadysh, 55°39.501'N, 51°06.069'E, 20.5.2012, V.E Ustinov - ML; **Orenburg Region.** 1 female, 12 km SW Troitsk, 18-21.5.2012, S.V. Litovkin - MD; 1 female, Orenburg, 3.6.1985, M. Nesterov - MD; **Chelyabinsk Region.** 2 females, B. Miassovo, Ilmen Natural Reserve, 23.6.1985, M. Nesterov - MD; 2 males, 1 female, Tyulyuk, 800 m, Iremel Mt., 30.6.1998, M. Danilevsky - ML; **Novosibirsk Region.** 2 females, Novomikhaylovka, 8-9.7.1987, V. Grachev -MD; **Tomsk Region.** 13 males, 7 females, W Siberia, S Tomsk, Belousovo, 56°18'13''N, 85°11'53''E, 160 m, 2.6.2012, D. Kuleshov - MD; **Kemerovo Region.** 1 male, 9 km S Tchumay, Kozhukh River, 55°39.5'N, 87°49.5'E, 25.6.2019, S. Luzinyan -

M.A. Lazarev

MD; 1 male, Kemerovo env., 6.7.2020, D. Efimov - MD; 1 female, Podyakovo, 1-11. 7.2010, N. Teplova - MD; 1 female, 10 km N Polutornik, 6.7.2009, O. Artemova - MD; 1 female, Kemerovo Region, Mundybash, 4.7.2005, A. Zhuravleva - MD; 2 females, Makarasky, 1-8.7.2007, V. Babushkina - MD; 1 female, Ust-Kabyrza, 1-4.7.2018, D. Sidorov - MD; **Altai Region.** 1 female, Zmeinogorsk, 10.6.1911 - ZMM; 1 male, Zmeinogorsk, 11.6.1984, V. Shilenkov - MD; 1 female, Altai, Kolyvan, Kamenka, 15.6.1984, V. Shilenkov - MD; **Tyumen Region.** 2 males, 1 female, Tobolsk, 19.6.1929, 14.7.1933, 18.7.1933, Teleshov - ZMM; 1 male, 1 female, Tobolsk, 20.6.1935, 23.6.1935 - ZMM; **Altai Republic.** 1 male, 1 female, Gorno-Altaysk, 1963, Z. Belova - ZMM; 1 male, Shebalino, 26.5.1934 - ZMM; 1 female, Artybash, 21.6.1981, A. Zaytsev - MD; **Republic of Khakassia.** 1 male, Khakassia, Kuznetsky Alatau, 8 km from Balyksa, Terensuk River, 3-4.7.2004, E. Kudryashova - MD; **Kazakhstan:** 1 female, 27 km NE Ust-Kamenogorsk, Tarkhanka, 14.7.1993, A.V. Ivanov - ML; 1 female, Zyryanovsk, 500 m, 12.6.1994, M. Danilevsky - ML; 1 male, 1 female, Zyryanovsk, 500 m, 25.7.1999, D. Obydov - MD; 2 males, 4 females, Putintsevo, 20 km N Zyryanovsk, Maralikha Mt., 49°51'N, 84°25'E, 1000 m, 11-20.6.2005, Danilevsky - MD; 1 male, Sibinka River, 49°36'N, 82°28'E, 500 m, 1.6.2005, M.L. Danilevsky - MD; **Ukraine: Poltava Region.** 1 male, Lokhvitsa District, 19.7.1905, P. Zhikharev - ZMM; 1 female, Yareski, 18.6.1919 - ZMM; **Kharkov Region.** 2 males, Kharkov distr., Merefa, 8.5.1952 - ZMM; 1 male, 2 females, Kharkov distr., Merefa, 13.5.1952 - ZMM; 2 females, Kharkov distr., Merefa, 21.7.1953, 5.6.1952 - ZMM; **Odessa Region.** 1 female, Vilkovo, 31.5.1980, M. Nesterov - MD; 2 males, 2 females, Podolsk District, Aleksandrovka, 15.5.2010, G.V. Popov leg. - AG; **Kyiv Region.** 2 males, Motovilovka, 28-29.5.1912, Vetr.-Zubovskiy - ZMM; 2 males, 1 female, Irpin, 22.6.1980, M. Nesterov - MD; 1 male, Kyiv, Bortnychi, 4.6.1988, V.I. Gusarov - ML; **Ternopol Region.** 1 male, Medobory Nature Reserve, 20.5.2004, V.V. Martynov - AG; **Zakarpattia Region.** 1 male, Rakhov Distr., 4 km SW Kvasy, 7.6.1973, I. Zykov - ML; 1 male, 2 female, Rakhov District, Chernaya Tisa, 29.6.1973, I. Zykov - ML; 1 female, Transcarpathia, Rakhov Distr., Kvasy, 23.7.1973, I. Zykov -MD; 1 male, Uzhhorod District, Nevitskoe,

M.A. Lazarev

7.7.1980, A.G. Koval - ML; 1 male, Chernaya Mt., 31.5.1981, A.G. Koval - ML; 1 male, Velykyi Bereznyi, 18.7.1981, A.G. Koval - ML; **Belarus:** 1 male, Borisov, 10.6.1977, A. Tikhomirov - ML; **Republic of Moldova:** 1 male, Bessarabia, Kostuleny, na Prute, 21.6.1945 - ZMM; 1 male, Meresheny, 6.6.1988, L. Penev - ML; 1 male, Codru Reserve, 8.6.1988, L. Penev - ML; 1 male, 1 female, Kozhushna, 9.5.2009, A. Zubov - ML; **Bulgaria:** 2 males, Lozenska Planina, Mtn., Goliya Rid peak, 42°36'N, 23°25'E, 760 m, 26.6.2006, T. Ljubomirov - ML; **Hungaria:** 1 male, Sátoristye, J. Meschnigg - ZMM; **Serbia:** 1 female, Stara Planina, Babin Zub Mt., 1-7.7.2015, M. Krivosheina - MD; **Austria:** 1 male, Kärnten - ZMM; 1 male, 2 females, Gießhübl bei Wien - ZMM; **Germany:** 1 female, Pfalz, Dahn, 5.1971, R. Schimmel - MD; 1 male, Berlin - MD; **Italy:** 1 female, Forli, 29.6.1982 - MD; 1 male, Stresa, 20.5.1937 - MD; **France:** 1 male, Pyrenees or. Prades, 24-30.6.1986, R. Schimmel - ML.

Distribution. The northern most locality was published for Karelia (Plavilstshikov, 1968) and Komi (Tatarinova et al., 2007 - Ukhta); eastwards the taxon penetrates to Khakassia; southwards the taxon reaches Volgograd and Krasnodar regions, but not penetrates to Transcaucasia; westwards the subspecies is distributed all over Europe including Iberian Peninsula.



Figs 1-4. *A. (E.) villosoviridescens* (DeGeer, 1775) - holotype, female, *Cerambyx villosoviridescens* DeGeer, 1775: 1. dorsal view, 2. lateral view, 3. position of the specimen in the draw, 4. set of labels - photographed by J. Bergsten (© 2021 Naturhistoriska riksmuseet). Made available by the Swedish Museum of Natural History (CC-BY 4.0 license).

M.A. Lazarev

***Agapanthia (Epoptes) villosoviridescens helianthi* Plavilstshikovi,
1935, stat. n.**

Figs 5-6, Map 1

- Agapanthia dahli* Rich. ab. *lederi* Gebl., Bogdanov-Katkov, 1917: 50 - Yekaterinodar.
- Agapanthia simplicicornis* ab. *heyrovskyi* Roubal, 1917: 63 - "for Russia mer.: Pjatigorsk".
- Agapanthia villosoviridescens* var. *mesmini* Pic, 1927: 7 - "Caucase".
- Agapanthia subchalybaea subchalybaea*, Plavilstshikov, 1929b: 136, part. - "Nord-Kaukasus: Groznyj", "Kuban: Vashtrak", "Fl. Laba", "Anapa", "Central-Kaukasus: Teberda, 7000'", "Majcop", "Vladikavkas", "Lars", "Atshish'cho", "West-Kaukasus: Krasnaja Poljana", "Sotshi", "Abchasia: Gagry, 5000'", "Transkaukasien: Mz'chet", "Borzhom", "Abas-Tuman", "Teliani", "Manglis", "Bacuriani", "Suram", "Kusary", "Kars", "Talysh".
- Agapanthia* (s. str.) *helianthi* Plavilstshikov, 1935: 250 - "Rossia mer.-or.: Novotsherkassk; Matveev Kurgan; Ciscaucasia: prov. Kuban [loc. numerosa: Abinskaja, Korenovskaja, Rodnikovskaja, Mirkaja, Labinskaja, Tul'skaja, Maikop etc.], prov. Terek [loc. numerosa: Naurskaja, Petropavlovskaja, Grozny etc.]; Transcaucasia: Mzchet, ..., Teliani"; 1948: 169, part. - Ciscaucasia, Georgia; 1968: 124, 164 - In the European part of the USSR, it is distributed in the southeast, namely in the Rostov region and further south ... all over the Ciscaucasia; in Transcaucasia found in a number of areas of Georgia; Lobanov et al., 1982: 269; Danilevsky & Mirosnikov, 1985: 386, 391, photo 38, part. - South of the European part of the USSR, Caucasus, Transcaucasia, Talysh.
- Agapanthia* (s. str.) *villosoviridescens*, Plavilstshikov, 1948: 168, part. - North Armenia, Sevan, dol. Arax; Europe, Caucasus, western Siberia; Abdurakhmanov, 2012: 32 - Russia, Dagestan, Pervomaysk.
- Agapanthia* (s. str.) *subchalybaea subchalybaea*, Plavilstshikov, 1948: 169 - North Armenia, Sevan, Alagez, Zangezur; (Caucasus).
- Agapanthia helianthi*, Zaitzev, 1954: 19, part. - Georgia, middle Asia; Breuning, 1961: 186. - "Caucase, Transcaucasic"; Plavilstshikov, 1965: 416 - Ciscaucasia; Fomichev, 1983: 44, part. - Russia, (Republic of Kalmykia, Gorodovikovsk), (Rostov Region, Bolshiye Saly); Mirosnikov, 1984: 279 (larva) - Krasnodar; Kasatkin & Arzanov, 1997: 67 - Kislovodsk; Japoshvili et al, 2022: 794 - "from Lagodekhi protected areas, Sakartvelo (Georgia)".
- Agapanthia villosoviridescens*, Breuning, 1961: 186, part. (= *lederi* Ganglb.) - "Europe, As. occ. et centr."; Runich et al., 2000: 85, part. - Russia, Mount Mashuk near Pyatigorsk.
- Agapanthia lopatini* Kazjutschits, 1988: 583 - Armenian SSR, Byurakan, southern slope of Mount Aragats.
- Agapanthia lederi*, Danilevsky, 1992: 115 (= *helianthi* Plav.); 1993: 39 (= *lopatini* Kazjutschits); 2010: 45 (= *mesmini* Pic); Althoff & Danilevsky, 1997: 40 (= *helianthi* Plav.); Kalashian, 2017: 44 - "Armenia: Hankavan hydrological

M.A. Lazarev

State Sanctuary”; Kalashian & Khalatyan, 2018: 312 - “Jermuk hydrological State Sanctuary (Armenia)”.

Agapanthia (Agapanthiella) lederi, Pesarini & Sabbadini, 2004: 127.

Agapanthia subchalybaea, Jablokoff-Khnzorian, 1961: 94 - Armenia.

Agapanthia (Epopetes) lederi, Danilevsky, 2009a: 657 (designation of lectotype and paralectotypes for *A. helianthi* Plav. - lectotype: Labinskaya, paralectotypes: Rodnikovskaya, Ladoga, Mingrelskaya, Naurskaya, Armavir, Grozny, Mtskheta, Telavi); Danilevsky, 2009b: 715; Danilevsky & Smetana, 2010: 216 (= *helianthi* Plav. = *mesmini* Pic = *lopatini* Kazjutschits) - Azerbaijan, Armenia, Georgia, south of European Russia; Lazarev, 2019: 1340 (lectotype) - “Cauc. bor. occ., prov. Kuban, Labinskaja”.

Agapanthia (Epopetes) lederi lederi, Danilevsky, 2020: 302, part. - south of European Russia, Georgia, Armenia, Azerbaijan, Turkey.

Type locality. Russia, Krasnodar Region, Labinsk [44°38'N, 40°44'E] (according to lectotype designation by Danilevsky, 2009: “Labinskaya”).

Description. Antennae in males surpassing elytral apices by 5 apical joints, in females - by 3-4 joints; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints usually reddish; one male from Tsagveri (Georgia) has red antennae; 3rd antennal joint with apical setae concentration; prothorax in males and in females transverse, widened posteriorly; pronotum with wide and dense central setae stripe; elytra shining, but without blue luster, without microsculpture, with usually poor greyish pubescence, which sometimes can be rather dense (Teberda); grey humeral elytral stripe often distinct; erect elytral setae long and dense along anterior elytral third, and gradually shortened posteriorly; elytral apices slightly attenuated; body length in males: 10.5-18.0 mm, female length: 11.0-21.5 mm.

The taxon differs from the nominative subspecies by less pubescent elytra and often presence of grey humeral elytral stripe.

Material. Russia: Krasnodar Region. 2 males, 1 female, Kuban, Bolshaya Laba River - ZMM; 1 male, Ekaterinodar [Krasnodar], 26.4.1911 - ZMM; 1 male, Armavir. 6.6.1912 - ZMM; 3 males, Armavir - Natyrbovo - ZMM; 2 males, Sochi, 18-19.6.1913, Zicharev - ZMM; 1 female, Sochi, 5.1986, A.Yu. Veselova - MD; 1 male, Sochi, 19.6.1913 - ZMM; 1 male, Sochi, Utch-Dere - ZMM; 1 male, 3 females, Sochi, 5.1986, L.Yu. Veselova - ML; 1 female,

M.A. Lazarev

Anapa, 13.7.1911, Zhikharev - ZMM; 2 males, Anapa, 27.6.1911, Zhikharev - ZMM; 1 male, 1 female, Kuban, Mingrelskoe, 10.5.1930, V. Galkin - ZMM; 1 male, Kuban prov., Ladozhskaya, 6.VI. - ZMM; 4 males, 5 females, Caucasus, Goryachy Klyuch, 5.1938, M. Lutchnik - ZMM; 3 females, Goryachy Klyuch, Shchetka Mt., 21.6.1987, N. Okhrimenko - MD; 1 female, Betta, 44°13'45.4853"N, 39°14'24.7287"E, 27.5.2011, V. Ustinov - VU; **Republic of Adygea.** Lectotype, male (length: 14.3 mm; width: 3.5 mm) with 5 labels: 1) [red] "Type"; 2) "Cauc. bor. occ. / prov. Kuban / Labinskaja / 19.VI.[1]914"; 3) "*Agapanthia / helianthi* / m. / N. Plavilstshikov det."; 4) [red] "LECTOTYPUS / *Agapanthia HELIANTHI* / Plavilstshikov, 1935 / M. Danilevsky des., 2008"; 5) [pink] "Зоомузей МГУ (Москва, РОССИЯ) / № ZMMU Col 00141 / Zool. Mus. Mosq. Univ. / (Mosquae, ROSSIA) / ex coll. N. N. Plavilstshikov" - ZMM; Paralectotype, male with three labels: 1) [red] "Cotype", 2) "Caucas. bor. / distr. Maikop / p. Rodnikovskaya, 1.VI 1930", 3) "*Agapanthia / helianthi* / m / N. Plavilstshikov det." - SZM; 1 male, 3 females, Maikop, Rodnikovskaya, 15.5.1930, B. Dobrovolsky - ZMM; 5 males, Maikop, Rodnikovskaya, 1.6.1930 - ZMM; 1 male, 1 female, Maikop, 30.5.1929 - ZMM; 1 male, 1 female, Maikop, 12-13.6.1933 - ZMM; 2 males, Maikop, 1.6.1933, 26.6.1933, Arnoldi - ZMM; 1 male, Maikop, 5.6.1935 -ZMM; 2 males, Maikop, 4.5.1947 - ZMM; 2 females, Maikop, 15.5.1951, 18.5.1952 - ZMM; 1 male, 10 km SW Krasnodar, Khomuty, 21.6.1988, V.I. Gusarov - ML; 4 males, 2 females, Khomuty, 6.1973, A. Miroshnikov - MD; **Karachay-Cherkessia Republic.** 1 female, Kuban, Teberda - ZMM; 1 male, 1 female, Teberda, A. Zolotarew - ZMM; 1 male, Cauc. sept. Teberda, Popova g., 19.6.1908, A. Zolotarew - ZMM; 36 males, 23 females, Teberda, 2.6.1930, P. Elagin - ZMM; 7 males, 6 females, Teberda, 30.5.1931, P. Elagin - ZMM; 1 male, Teberda, 20.7.1964, A. Tikhomirova - ZMM; 1 female, Teberda, 4200', S. Tschetweikow - ZMM; 1 male, Cauc. cent, bor. Teberda, 7000', A. Zolotarew - ZMM; 3 females, Teberda, 24.5.1940, 8.6.1940 - MD; 1 male, Teberda, Mukha, 25.6.1916 - MD; 4 males, 2 females, N Caucasus, Teberda, 1700-1800 m, watershed Dzhenaït and Korylykaya Rivers, 22.6.1993, V. Savitsky - MD; 1 female, Caucasus, Zelenchukskaya, 26.5.1949, M. Stavskaya - ZMM; **Stavropol Region.** 1 male, Cauc.

M.A. Lazarev

bor. Stavropol, 5.1914, B. Zolotarevsky - ZMM; 1 male, Cauc. bor. Stavropol, 7-13.5.1914, B. Zolotarevsky - ZMM; 1 male, Cauc. bor. Stavropol, 1-10.6.1914, B. Zolotarevsky - ZMM; 1 female, Caucas. bor., Stavropol, 13.5.1914, A. Zolotarew - ZMM; 1 male, Kislovodsk - ZMM; 1 male, Kislovodsk, 6.1913, N. Plavilstchikov - ZMM; 1 male, 1 female, Kislovodsk env, 1-10.6.2003, Y. Liman - ML; 1 female, near Kislovodsk, Beriozovaya River, 1000 m, 10.6.1995 - SM; 1 male, Zheleznovodsk, 9.6.1907, Pliginsky - ZMM; 2 males, Zheleznovodsk, 11.5.1909, J. Parfentiev - ZMM; 1 female, Caucasus, Mineralnye Vody, Mashuk, 13.5.1909, J. Parfentiev - ZMM; 3 males, 1 female, Mashuk, 44°2'51.26"N, 43°6'2"E, 29.4.2024, M. Danilevsky - MD; 1 female, Mashuk, 44°2'49"N, 43°4'55"E, 26.4.2024, M. Danilevsky - MD; 3 males, Mashuk, 44°03.020'N, 43°04.186'E, 25.4.2024, V. Ustinov - VU; 5 males, Pyatigorsk, Kolstevaya str., 44°05.301'N, 43°00.694'E, 28.4.2024, V. Ustinov - VU; 2 males, 1 female, Pyatigorsk, Proval env., 29.4.2024, V. Ustinov - VU; 1 male, Temnolesskaya, 31.5.1950, O. Kryzhanovski - ZMM; **Republic of North Ossetia-Alania.** 1 male, Mont. prope Wladikavkas, A Zolotarew - ZMM; 1 male, 2 females, Mozdok, 27.5.1982, V. Janushev - MD; **Republic of Ingushetia.** 1 female, Nizhniy Alkun [Alkun], 8.6.1958, B. Vorobev - ZMM; **Chechen Republic.** 1 female, Grozny, Luchnik - ZMM; 1 female, Grozny, 1909, Luchnik - ZMM; 1 male, Grozny, 20.5.1913, N. Plavilstchikov - ZMM; 2 males, 2 females, Naurskaya, 4.6.1913, N. Plavilstshikov - ZMM; 1 male, Chechnya, Starogladkovskaya, Terek River, 23.6.1928, Arnoldi - MD; **Republic of Dagestan.** 1 female, Kizlyar, 25.6.1932 - ZMM; 2 males, Khasavyurt, 14.6.1953, 18.8.1953 - ZMM; 1 male, 2 females, Novy Biryuzak, 21.5.1959, B. Vorobev - ZMM; **Georgia:** 1 male, Manglisi, 22.VI. - ZMM; 2 males, Manglisi, 1200 m, 16.6.1990, M. Danilivsky - MD, ML; 1 female, Bakuriani, 7.1924 - ZMM; 1 female, Bakuriani, 19.7.1909, J. Parfentiev - ZMM; 3 females, Bakuriani, 11.7.1930, N. Kotova - ZMM; 4 males, 4 females, Bakuriani, 24.7.1930, N. Kotova - ZMM; 1 male, Bakuriani, 29.7.1930, N. Kotova - ZMM; 2 males, Teliani prope, Telav, Kakhetia, 20.06.1907, N.J. Fursov - ZMM; 1 male, Kakheti, 24.8. - ZMM; 1 male, Mtschet, prope Tiflis, 9.6.1915, B. Uvarov - ZMM; 1 male, Mtskheta, 31.5.1914, L. Bankovsky - ZMM; 1 female,

M.A. Lazarev

Mtschet, prope Tiflis, 8.1915 - ZMM; 1 male, Tiflis, Suram, 28.5.1882 - ZMM; 1 male, Surami, 5.6.1917, C. Ahnger - ZMM; 1 male, Tsagveri, 25.5.1967, I. Dzhavelidze - MD; 1 female, Tsagveri, 21.6.1982, V. Dolin - MD; 2 males, Tsagveri, 23.7.1987, M. Danilevsky - ML; 1 female, Borzhom, 6.1925 - ZMM; 1 male, Borzhomi, 18.7.1902 - MD; 1 female, Borzhomi, 2.8.1987, O. Gorbunov - ML; 1 male, Tbilisi, Satovle Ridge, 1300-1400 m, 18.6.1985, S. Kyzmin - MD; 1 female, Mskhneta, 22.5.1985, R.D. Zhantiev - ML; 8 males, 6 females, Akhaldaba, 15.7.1987, M. Danilevsky - MD; 5 males, 3 females, Akhaldaba, 600 m, 15.7.1987, M. Danilevsky - ML; 1 male, Orbeti, Trialiti Ridge, 28-29.5.2016, A. Zubov - MD; **Armenia:** 1 male, Erivan Distr., Darachichag [Tsaghkadzor], 20.6.1912, Dobrovljanski - ZMM; 1 male, 1 female, Transcauc., Erivan Distr., Darachichag, 14-17.7.1912, Dobrovljanski - ZMM; 1 male, Darachichag, 6.1935 - ZMM; 1 female, Inaklyu [Antarut], 26.7.1934, B. Tkatchukov - ZMM; 1 female, Alagez [Aragats Mount], Inaklyu, 6.1935 - ZMM; 1 male, Alagez, Inaklyu, 25.7.1936 - ZMM; 1 male, 1 female, Alagez, Inaklyu, 26.7.1936 - ZMM; 1 female, Alagez, Inaklyu, 28.6.1956, A. Tsvetaev - ZMM; 1 female, Daratchitchag, Maljushenko - ZMM; 4 males, 1 female, Daratchitchag, 14-17.7.1912, Dobrovljansky - ZMM; 1 male, Idzhevan, 26.5.1935, A. Zagulyaev - ZMM; 2 females, Darachichag, 7.1935 - ZMM; 1 female, Idzhevan, 26.5.1955, L. Zomina - ZMM; 1 male, Idzhevan, 26.5.1955, L. Zimina - ZMM; 1 male, Idzhevan, Kirants, 30.4.1989, M. Kalashian - MD; 2 males, Idzhevan, Kirants, 20.4-2.5.1989, M. Kalashian - ML; 1 female, Tavush, Ditavan, 40.955°N, 45.222°E, 1400 m, 27.6.2015, S. Murzin - ML; 1 female, Geghard, 8.6.1989, M. Kalashian - ML; 1 female, Geghard, 40.1414°N, 44.8074°E, 1800 m, 19.5.2013, S. Murzin - SM; 1 female, Khosrov, 7.8.1967, M. Danilevsky - MD; 1 female, Khosrov, 1.7.1983, V. Kuznetsov - ML; 1 female, Khosrov, 2.7.1983, M. Danilevsky - MD; 1 male, 1 female, Khosrov, 24.6.1984, V. Kuznetsov - ML; 1 male, 1 female, Khosrov, 25.6.1986, M.Yu. Kalashian - ML; 2 males, 4 females, Khosrov, 25.6.1991, M. Kalashian - MD; 2 males, 1 female, Khosrov, 24.7.1991, M. Kalashian - MD; 2 males, Khosrov, 1-3.6.1992, A. Sukiasian - VU; 1 male, Khosrov, 19.8.2002, M. Kalashian - MD; 1 male, 1 female, Khosrov, 24.6.1992, M. Kalashian - MD; 1 male, 1 male,

M.A. Lazarev

Khosrov, 5.6.1982, Dolin - ML; 1 male, 1 female, Khosrov Reserve, Central aerea, E slope of Kotuts Mt., 9.6.2002, M. Kalashian - SM; 1 male, Khosrov, 40°02'N, 45°02'E, 10-12.6.2003, M. Danilevsky - MD; 1 female, Byurakan, 17.6.2003, 1700 m, M. Danilevsky - MD; 1 male, 3 females, Arailer, 1900-2000 m, 18-21.6.2003, M. Danilevsky - MD; **Azerbaijan**: 1 female, Transcaucasia, Arax, Sabir-Abad, 8.VI. - ZMM; 2 female, Qusar, 1.7.1900, 10.7.1900, A. Zavadsk - ZMM; 1 male, 1 male, Transcaucasia, Akstafa, 13.6.1907, D. Skorospelov - ZMM; 1 male, 1 female, Barda, 26.6.1933, F. Lukjanovitch - ZMM; 1 female, Nukha [Shaki], 25.6.1933, F. Lukjanovich - ZMM; 1 male, 1 female, Nukha, 25.7.1933, F. Lukjanovitch - ZMM; 1 male, 1 female, Altyagach, 9.7.1979, M. Danilevsky - MD.

Distribution. North Caucasus without very high areas from Krasnodar Region to Daghestan; Transcaucasia: Azerbaijan without Talysh, Armenia without north Trans Sevan mountains and without south Meghri environs, Georgia without high mountains.

Agapanthia (Epopetes) villosoviridescens subnigra Pic, 1890, stat. n. Figs 7-9, Map 1

Agapanthia subnigra Pic, 1890: 119 - "Georgie"; Winkler, 1929: 1213; Danilevsky, 2010: 44; Sama et al., 2008: 122 (?= *subchalybaea* Pic) - "Caucasus", "absent in Iran".

Agapanthia villosoviridescens var. *subchalybaea* Reitter, 1898: 134 - "Kaukasus und Turkestan: Taschkend"; Winkler, 1929: 1213 - "Ca. Tk.", **syn. n.**

Agapanthia angusticollis v. *subacuta* Pic. 1909: 106 - "Caucase".

Agapanthia (s. str.) *villosoviridescens*, Pic, 1910: 97, part. (= *lineotocollis* Donov., = *angusticollis* Gyll., = *lederi* Ganglb., = *acutipennis* Muls., = *pyrenaea* Bris., = *nicaeensis* Chevr., = *subchalybaea* Reitt., = *subacuta* Pic).

Agapanthia (s. str.) *subnigra*, Pic, 1910: 97 - "Caucase"; Aurivillius, 1923: 464, part. - "Kaukasus".

Agapanthia (s. str.) *villosoviridescens* var. *subchalybaea*, Aurivillius, 1923: 466, part. - "Kaukasus, Turkestan".

Agapanthia (s. str.) *villosoviridescens* var. *subacuta*, Aurivillius, 1923: 466, part. - "Kaukasus".

Agapanthia subchalybaea subchalybaea, Plavilstshikov, 1929: 103, part. - "Caucasus"; 1930a: 131.

Agapanthia (s. str.) *subchalybaea subchalybaea*, Plavilstshikov, 1930b: 34, 40, part. (= *subacuta* Pic = *subnigra* Pic); 1948: 169, part. - North Armenia, Sevan, Alagez, Zangezur; (Caucasus).

M.A. Lazarev

- Agapanthia subchalybaea*, Plavilstshikov, 1932: 194, part. - Caucasus; 1965: 416, part. - Caucasus; Zaitzev, 1954: 19, part. - Georgia: Borjomi, Gvirgvina, Tana, Tsagveri, Akhaldaba, Saguramo, Mtskheta, Tbilisi, Lagodekhi, Armenia, middle Asia; Breuning, 1961: 186, part. (= *subacuta* Pic, = *subnigra* Pic, = *turanica* Plav.) - "Caucase, Transcaucasie"; Kasatkin & Arzanov, 1997: 67, part. - Krasnodar Krai: Ust-Labinsk, Nickel; Karachayevo-Cherkessia: Teberda, ridge Arkasara; Kabardino-Balkaria: Dolina Narzanov, 1350 m, 43°41'50"N, 42°40'28"E; Danilevsky, 2010: 44.
- Agapanthia subchalybaea* m. *subnigra*, Breuning, 1961: 186.
- Agapanthia subchalybaea* m. *subacuta*, Breuning, 1961: 186.
- Agapanthia* (s. str.) *subchalybaea*, Plavilstshikov, 1968: 123, 159, part. (= *subacuta* Pic = *subnigra* Pic) - Caucasus with Transcaucasia. Northeastern Turkey; Lobanov et al., 1982: 269; Danilevsky, Miroshnikov, 1985: 386, 391 - Caucasus, Transcaucasia; Northeast Turkey.
- Agapanthia* (*Agapanthiella*) *subnigra*, Pesarini & Sabbadini, 2004: 127.
- Agapanthia* (*Agapanthiella*) *subchalybaea*, Pesarini & Sabbadini, 2004: 127; Özdikmen, 2007: 349, 392, part. (?= *subnigra* Pic) - Turkey.
- Agapanthia* (*Epoptes*) *subnigra*, Danilevsky & Smetana, 2010: 216, part. - Azerbaijan, Georgia, Russia: South European Territory; Danilevsky, 2020: 303 - Georgia.
- Agapanthia* (*Epoptes*) *subchalybaea*, Danilevsky & Smetana, 2010: 216 (= *subacuta* Pic), part. - Azerbaijan, Georgia, Russia: South European Territory; Özdikmen, 2013: 20 - Turkey: Konya; Danilevsky, 2020: 303, part. - Azerbaijan, Georgia, Russia: South European Territory.
- ?*Agapanthia subchalybaea*, Şabanoglu, 2020: 204 (misspelling, unavailable name) - Turkey: Rize: İkizdere.

Type locality. High mountains of Georgia, according to the holotype habitus and available material.

Description. Antennae reaching elytral apex by 6th-8th joints in males, in females - by 9th-10th joints; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints never reddish; 3rd antennal joint with apical setae concentration; prothorax in males about as long as wide, and about as wide anteriorly, as posteriorly; in females prothorax transverse with wider hind part; pronotum with narrow setae stripe, often more or less reduced; elytra about glabrous, with poor bluish luster, recumbent pubescence often indistinct, but with dense erect setae present up to the apex; microsculpture absent; body length in males: 11.2-16.4 mm, in females: 11.4-18.7 mm.

This high mountain taxon is close to *A. v. helianthi* Plav. but can be easily identified by poor elytral pubescence and bluish luster.

M.A. Lazarev

Material. Russia: Krasnodar Region. 1 male, 2 females, Circassia, Kardyvach, 20.6.1912, I. Michelson - ZMM; 2 males, Atchishkho, 1600 m, 28.6.1973, A. Lobanov - MD; 1 female, Cauc. occ., Krasnaya Polyana, VIII, Dr. Lgocki - ZMM; 3 males, 1 female, Krasnaya Polyana, 26.7.1910 - ZMM; 1 male, Krasnaya Polyana, 1952, Zhelokhovtsev - ZMM; 4 males, 2 females, Cauc., Krasnaya Polyana, 9-15.8.1952, Zhelokhovtsev - ZMM; 2 males, Atchishkho, 800-1500 m, 10.8.2003, 23.6.2005, V. Savitsky - MD; 1 male, Novorossiysk, Andreevsky pass, 500 m, 44°43'N, 37°51'E, 5.6.2010, M. Danilevsky - MD; **Republic of Adygea.** 1 female, Abago Mt., 2100 m, 29-30.6.1999, Puchkov - MD; 1 female, Russia, westwards Tkhach Mt., 1700-1900 m, 20.7.2002, V. Savitsky - MD; 1 male, Lagonaki, Ridge, Kamennoe More, 1760-1800 m, 44°10'33"N, 40°03'19"E, 7-19.6.2012, A.V. Korshunov - MD; **Karachay-Cherkessia Republic.** 1 male, Damkhurts, 29.7.1967, N. Filippov - MD; 1 female, from same locality, 14.8.1967, N. Filippov - MD; 1 female, from same locality, 18.8.1967, S. Sharova - MD; 1 male, 1 female, Bolshaya Laba River, Pkhiya, 1400-1600 m, 29.8.1992, V. & M. Savitsky - MD; 2 males, 2 females, Bolshaya Laba River, Arkasara Ridge, 1500 m, 25.6.1997, I. Shokhin - MD; 1 male, 1 female, Arkhyz, Abishara-Akhuba Ridge, Dzhumarykly-Tebe Mt. [43°36'7"N, 41°14'41"E], 1800 m, 11.7.2009, A. Zubov - ML; **Kabardino-Balkaria Republic.** 1 male, Dolina Narzanov, 1964 - MD; 1 female, Tyrnyauz, 1800-2200 m, 6.6.1988, M. Danilevsky - MD; **Republic of North Ossetia-Alania.** 1 female, Fiagdon, 1.8.1983 - MD; **Republic of South Ossetia - the State of Alania.** 1 male, Tskhinvali, 7.1929, Zurinov - ZMM; **Georgia:** Holotype, male with 7 labels: 1) [white] "type"; 2) [white] "Caucase"; 3) [white] "*agap. subnigra* / Pic. (Georgie) / *subnigra* p. 119"; 4) [white] "Museum Paris / Coll. M. Pic" 5) [red] "HOLOTYPE"; 6) [white] "HOLOTYPE / *Agapanthia* / *subnigra* Pic, 1890"; 7) [white] "MNHN, Paris / EC26187" - MNHN; 6 females, Abastumani, VII. - ZMM; 1 male, Abastumani, 8.7.1895 - ZMM; 2 females, Abastumani, 20-30.6.1914 - ZMM; 1 male, south slope of Svaneti Ridge, Lentrkhi district, 9 km NW Kheledy, 1800-1900 m, 8-11.7.2005 - MD; 1 male, Tehuri River, 2000 m, 30.6.1989, A. Koval - MD; 1 female, Martvili distr., left bank of Tekhuri River, 15-30.6.2005 - MD; 1 male, 1 female, Imeretia, N slope of

M.A. Lazarev

Meskhetsky Ridge, 6 km S Sairme, 1000 m, 23-026.6. 2006, A. Puchkov - MD; 2 females, Imeretia, Meskhetsky Ridge, Zekari Pass, 2100-2200 m, 26-30.6.2006, A. Puchkov - MD; 2 males, Lebarde, 42°44'20"N, 42°30'04"E, 1600 m, A. Zubov - MD; 3 males, E Tbilisi, Lori River, S Sagarejo, 19.6.2015, Snižek - SM & ML; 1 male, 1 female, 50 km S Kutisi, SE Sairme, Zekari pass, 22.6.2015, Snižek - ML; 1 male, SE Tbilisi, Udabno, 30.6.2015, Snižek - SM; **Republic of Abkhazia.** 1 male, Mont. Gagra, 6000', A. Zolotarew - ZMM; 1 male, Gagra, 5.7.1932 - MD; 1 male, Gagra, 6.1936 - MD; 1 male, Mamzyshkha Mt., 11.6.1986, N. Okhrimenko - MD; 1 male, 3 females, westwards Bzyb Ridge, Anzhulyara Mt. [43°20'N, 40°28'E], 1250-1600 m, 15.6.2004, V. Savitsky - MD; 2 males, 2 females, Mt. Atchibakh, 15 km W Pskhu, 23.6.2009, A. Gusakov - MD; 2 males, congluent of Avadkhara and Lashepse, 1470 m, 43°29'49"N, 40°39'43"E, 12.7.2009, A. Bondarenko - MD; 3 females, Bzyb vall., 1000-1600 m, 23.6.2009, A. Prosvirov - ML & SM; 1 female, Bzyb vall., 600 m, 4.7.2009, A. Prosvirov - SM; 1 male, Pyv Pass, 1880 m, 43°29'22"N, 40°41'18"E, 26.6.2010, A. Bondarenko - MD.

Distribution. High mountains of Caucasus and Transcaucasia.



Figs 5-6. *A. (E.) v. helianthi* Plavilstshikovi, 1935, stat. n.: 5. Lectotype, male; 6. set of labels.

Figs 7-9. *A. (E.) v. subnigra* Pic, 1890, stat. n.: 7. Holotype, male; 8. lateral view; 9. set of labels.

M.A. Lazarev

Agapanthia (Epopetes) villosoviridescens syunika ssp. n.

Figs 10-13, Map 1

Type locality. Armenia, Syunik province, Meghri, Gumorantz, 38°59'49.20"N, 46°22'35.76"E, 1516 m.

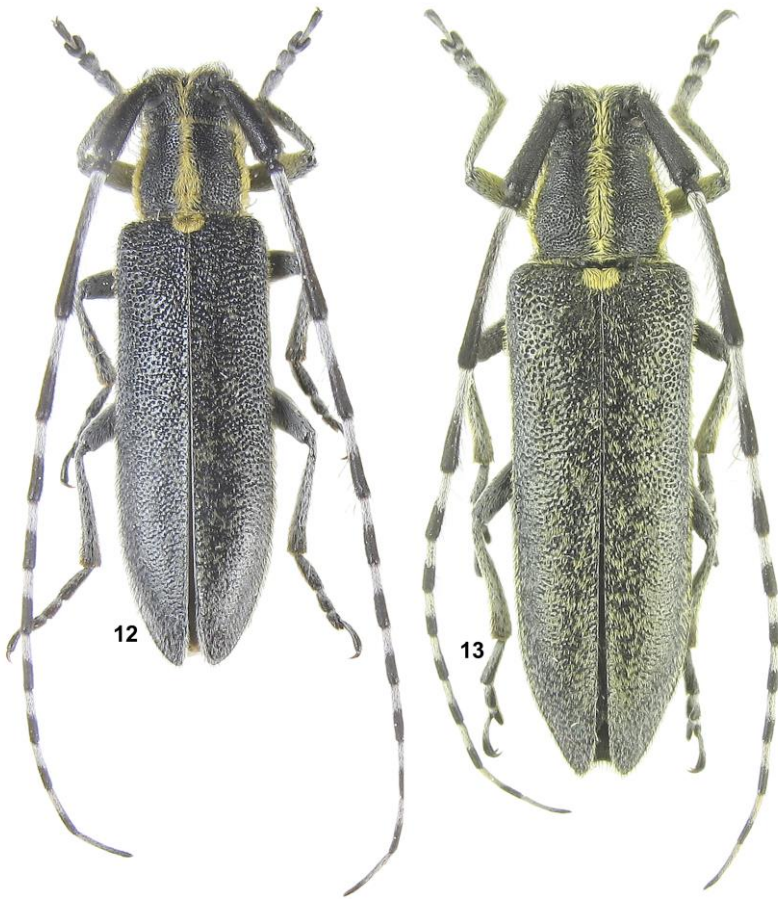
Description. Antennae protruding beyond elytral apex with 4 joints, about one third longer than body; long oblique setae concentrated at 3rd joint apex; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints not reddish; prothorax about as long as wide, and about as wide anteriorly, as posteriorly; pronotum with wide well-developed dense yellow stripes; elytra shining, without microsculpture, with very poor recumbent pubescence, nearly glabrous, grey humeral elytral stripe absent; with indistinct setae spots, slightly shiny, without blue luster; erect setae concentrate anteriorly, diminished posteriorly; grey humeral elytral stripe absent; body length in males: 11.2-15.7 mm, in females: 15.9-18.1 mm.

The taxon is very close to *A. (E.) v. lederi* Ganglbauer, 1884 from which it can be easily distinguished by short antennae.

Material. Armenia: Holotype, male, Syunik province, Meghri, Gumorantz, 38°59'49.20"N, 46°22'35.76"E, 1516 m, 30.5.2013, S. Murzin - ML; 22 paratypes; 1 female, Mt. Khustup, 4.7.1982, M. Danilevsky - MD; 2 males, Shikahogh, 3.7.1981, M. Kalashian - MD; 1 male, Shikahogh, 19.6.1982, M. Danilevsky - MD; 1 female, Nor Arajadzor, 39.3404°N, 46.4166°E, 1360 m, 18-21.5.2014, S. Murzin, J. Hron - SM; 1 male, Svarants, 39°21'21''N, 46°12'27''E, 1880 m, 4.5.2013, A. Rubenyan - MD; 5 males, 4 females, Khndzoresk, 39.50193°N, 46.4326°E, 1260 m, 16-22.5.2014, S. Murzin - SM & ML; 1 male, Khndzoresk, 39.5026°N, 46.4316°E, 1300 m, 22-25.5.2013, S. Murzin - ML; 1 female, Khndzoresk, 39.5°N, 46.43°E, 1300 m, 10.6.2016, S. Murzin - SM; **Azerbaijan:** 1 male, 16.5 km NW Zangilan, 39°11'35.4"N 46°31'23.5"E, 967 m, 5-6.5.2013, A. Rubenyan - MD; 1 male, Nakhichevan, Bichenek, 9.6.1982, M. Danilevsky - MD; 2 males, 1 female, Nakhichevan, Ordubad, 5.5.1987, Davydyan - ML.



Figs 10-11. *A. (E.) v. syunika* **ssp. n.:** 10. Holotype, male, Syunik province, Meghri, Gumorantz, 38°59'49.20"N, 46°22'35.76"E, 1516 m, 30.5.2013, S. Murzin; 11. Paratype, male, Armenia, Syunik province, Svarants, 1880 m, 39°21'21''N, 46°12'27''E, 4.5.2013, A. Rubenyan.



Figs 12-13. *A. (E.) v. syunika* **ssp. n.**: 12. Paratype, male, 16.5 km NW Zangilan, 39°11'35.4"N 46°31'23.5"E, 967 m, 5-6.5.2013, A. Rubenyan; 13. Paratype, females, Khndzoresk, 39.50193°N, 46.4326°E, 1260 m, 16-22.5.2014, S. Murzin.

M.A. Lazarev

Distribution. Armenia, Syunik province: Meghri, Gumorantz, 38°59'49.20"N, 46°22'35.76"E, 1516 m; Khustup Mt.; Shikahogh; Nor Arajadzor, 39°20'25.4451"N, 46°24'59.7684"E, 1360 m; Svarants, 39°21'21''N, 46°12'27''E, 1880 m; Khndzoresk (39°30'6.9531"N, 46°25'57.3684"E, 1260 m; 39°30'9.3651"N, 46°25'53.7684"E, 1300 m). Azerbaijan: 16.5 km NW Zangilan, 39°11'35.4"N 46°31'23.5"E, 967 m; Nakhichevan, Bichenek; Nakhichevan, Ordubad.

Etymology. The new taxon is named after the province of the type locality.

***Agapanthia (Epopetes) villosoviridescens murzini* ssp. n.**

Figs 14-15, Map 1

Type locality. Armenia, Gegharkunik province, Ayagut, 40°40'30.7251"N, 45°12'15.1285"E, 1420 m.

Description. Antennae in males protruding beyond elytral apex with 5 joints, about one half longer than body, in females antennae protruding beyond elytral apex with 3 joints, about one fifth longer than body; long oblique setae strongly concentrated at 3rd joint apex, forming poor setae tuft; pronotum in males transverse, distinctly widened posteriorly; with wide well-developed dense yellow stripes; elytra with very poor recumbent pubescence, but with dense erect setae up to the apex, with indistinct setae spots, without microsculpture, slightly shiny, without blue luster; grey humeral elytral stripe absent; body length in males: 12.3-15.2 mm; in females: 15.6-17.5 mm.

The taxon is very close to *A. (E.) v. syunika* ssp. n., but antennae are distinctly longer and prothorax widened posteriorly.

Material. Armenia: Holotype, male, Armenia, Ayagut, 40.6752°N, 45.2042°E, 1420 m, 12-13.6.2016, S. Murzin - ML; 6 paratypes; 1 male with the same label - ML; 1 male, Armenia, Ayagut, 40.6752°N, 45.2042°E, 1420 m, 1-4.6.2016, S. Murzin - ML; 1 male, Armenia, Gegharkunik prov., Ayagut, 40°40'30.72"N, 45°12'14.40"E, 1432 m, 30.6.2023, S. Murzin - SM; 1 male, Armenia, Gegharkunik prov., Ayagut, 40°40'30.72"N, 45°12'14.40"E, 1432 m, 18.5-15.6.2023, S. Murzin - SM; 1 female, Armenia, Gegharkunik prov., Ayagut, 40°40'30.72"N, 45°12'14.40"E, 1432 m, 23.6.2023, S. Murzin

M.A. Lazarev

- ML; 1 female, Armenia, Gegharkunik prov., Ayagut, 40°40'30.72"N, 45°12'14.40"E, 1432 m, 13.7.2023, S. Murzin - SM.

Distribution. North Armenia, Gegharkunik province, Ayagut environs.

***Agapanthia (Epoptes) villosoviridescens lederi* Ganglbauer, 1884**

Figs 16-17, Map 2

Agapanthia lineatocollis var. *lederi* Ganglbauer, 1884: 542 - "Caucasus".

Agapanthia (s. str.) *villosoviridescens*, Pic, 1910: 97, part. (= *lineatocollis* Donovan. = *angusticollis* Gyll.), part. (including v. *lederi* Ganglb., v. *subchalybaea* Reitt., v. *subacuta* Pic).

Agapanthia subchalybaea subchalybaea, Plavilstshikov, 1929b: 136, part. - "Nord-Kaukasus: Groznyj", "Kuban: Vashtrak", "Fl. Laba", "Anapa", "Central-Kaukasus: Teberda, 7000'", "Majcop", "Vladikavkas", "Lars", "Atshish'cho", "West-Kaukasus: Krasnaja Poljana", "Sotshi", "Abchasia: Gagry, 5000'", "Transkaukasien: Mz'chet", "Borzhom", "Abas-Tuman", "Teliani", "Manglis", "Bacuriani", "Suram", "Kusary", "Kars", "Talysh".

Agapanthia villosoviridescens var. *lederi*, Winkler, 1929: 1213; Villiers, 1978: 433.

Agapanthia (s. str.) *villosoviridescens* var. *lederi*, Plavilstshikov, 1930b: 32, 40, part. - "Kaukasus".

Type locality. According to Tavakilian & Chevillotte (23 November 2022), the type locality of *Agapanthia (Epoptes) lederi* Gang. is Talysh area of Caucasian Azerbaijan. So, traditional attribution of the origin of the species to the north-west Caucasus was not correct. The type specimens of *A. (E.) lederi* were collected in Talysh area by H. Leder, who often collected in Talysh, where *Clytus arietis lederi* Ganglbauer, 1882 was also described from.



Figs 14-15. *A. (E.) v. murzini* **ssp. n.:** 14. Holotype, male, Armenia, Ayagut, 40.6752°N, 45.2042°E, 1420 m, 12-13.6.2016, S. Murzin; 15. Paratype. female, Armenia, Gegharkunik prov., Ayagut, 40°40'30.72"N, 45°12'14.40"E, 1432 m, 23.6.2023, S. Murzin.



Figs 16-17. *A. (E.) v. lederi* Ganglbauer, 1884: 16. male (paratype of *A. l. hodeki* Danilevsky, 2018), Azerbaijan, Talysh, 17.7.1981, S. Nikireev; 17. female, (paratype of *A. l. hodeki* Danilevsky, 2018), Azerbaijan, Talysh, Avrora, 28.5.1979, M. Danilevsky.

M.A. Lazarev

Description. Antennae in males surpassing elytral apices by 5-6 apical joints, in females - by 3-4 joints; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints usually reddish; 3rd antennal joint with apical setae concentration; prothorax in males about as long as wide, and about as wide anteriorly, as posteriorly; in females prothorax transverse with wide hind part; pronotum with wide and dense central setae stripe; elytra shining, but without blue luster, without microsculpture, with very poor greyish pubescence, never hiding elytral surface; grey humeral elytral stripe absent; erect elytral setae long and dense along anterior elytral third, and gradually shortened posteriorly; elytral apices slightly attenuated in males, or rounded in females; body length in available males: 10.3-16.6 mm, in available females: 16.1-16.7 mm.

The taxon is very close to *A. (E.) v. hodeki* Danilevsky, 2018 from north-west Iran because of nearly glabrous elytra and very long antennae; but *A. (E.) v. lederi* distinctly more shining, with very smooth elytral interspaces, without microsculpture, bigger elytral punctation.

Material. Azerbaijan: 7 paratypes of *A. (E.) l. hodeki* Danilevsky, 2018: 1 male, Talysh, 10.5.1988, Voronin - MD; 1 male, 2 females, Talysh, 17.7.1981, S. Nikireev - MD; 1 female, Avrora, 28.5.1979, M. Danilevsky - MD; 1 female, Talysh, Avrora, 7.5.1983, S. Nikireev - MD; 1 male, “Kasp. Meer.-Geb. / Talysch / 1897 Korb” - MD; 1 male, “Talysch / 1897 Corb” - ZMM; 1 male, Talysh, Alekseevka, 9.6.1920, J. Safronov - ZMM.

Distribution. Azerbaijan, Talysh, Lerik and Avrora (Hirkan).

Agapanthia (Epoetes) villosoviridescens hodeki Danilevsky, 2018

Figs 18-19, Map 2

Agapanthia lederi hodeki Danilevsky, 2018: 181, part. – “Iran, p.Gilan, Rostamabad, 12 km W, 1550 m, 36°55', 49°23'”, “Iran, NW, prov. Gilan, Salaneh Sar, 20 km W Rostamabad”; “Talysch”, “Lerik”, Talysh, Avrora”; 2020: 302, part. - Azerbaijan (Talysh), Iran.

Type locality. Northern Iran, Gilan province, Rostamabad environs (36°55'N, 49°23'E).



Figs 18-19. *A. (E.) v. hodeki* Danilevsky, 2018: 18. Holotype, male, Iran, prov. Gilan, 12 km W Rostamabad, 36°55'N, 49°23'E, 6.6.2017, K. Hodek; 19. Paratype, female with same label.

M.A. Lazarev

Description. Antennae in males protruding beyond elytral apex with 5 joints, about one half longer than body, in female antennae protruding beyond elytral apex with 3 joints, about one fifth longer than body; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints never reddish; long oblique setae a little concentrated at 3rd joint apex; pronotum in males transverse, distinctly widened posteriorly; with wide well-developed dense yellow stripes; elytra with poor blue luster and distinct microsculpture; grey humeral elytral stripe absent; recumbent elytral pubescence, almost completely absent; short erect setae distinct up to the apex; elytral apices slightly attenuated; body length in males: 14.5-15.7 mm; in female: 16.2 mm.

The taxon is very close to *A. (E.) v. lederi* Ganglbauer, 1884 but differs by noticeable blue luster.

Material. Iran: Holotype, male, Iran, prov. Gilan, 12 km W Rostamabad, 36°55'N, 49°23'E, 6.6.2017, K. Hodek - MD; 2 paratypes: 1 male, 1 female with same label - MD. 1 male, Kaleibar env., Makidi, 1450-1650 m, 38.8406°N, 46.9102°E, 6-7.6.2013. S. Murzin - ML.

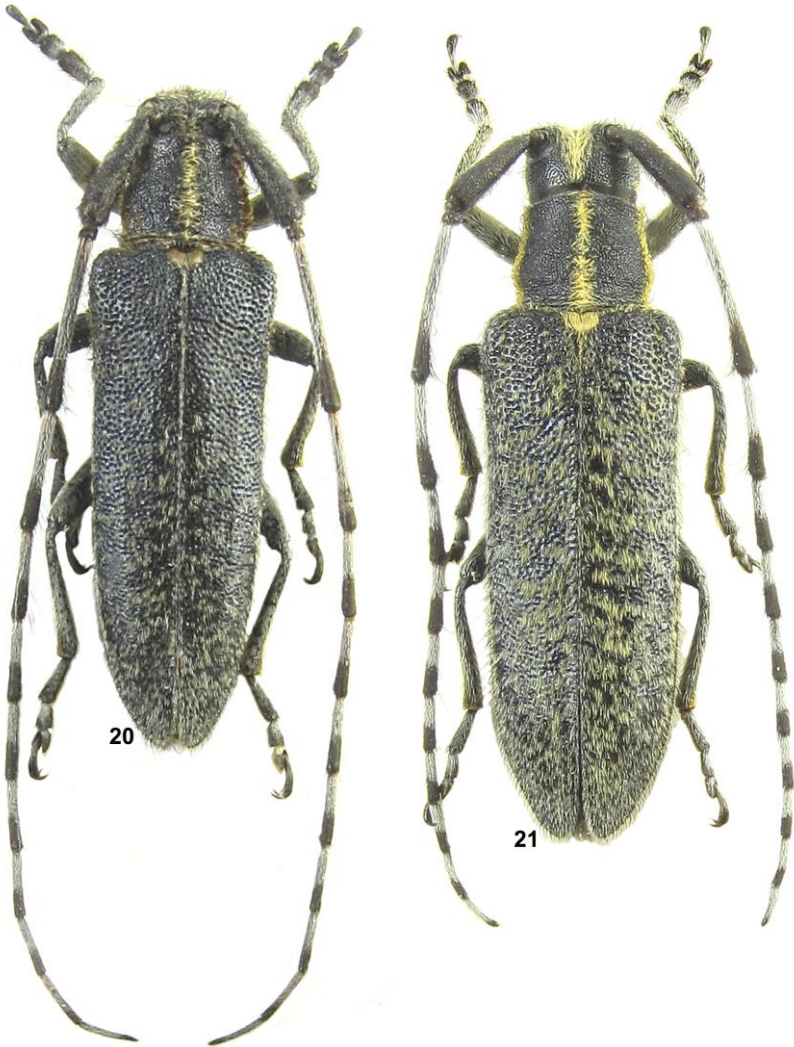
Distribution. Northern Iran, Gilan province, Rostamabad environs, 1550 m (36°55'N, 49°23'E); Northwestern Iran, East Azerbaijan province, Kaleibar environs., Makidi, 1450-1650 m (38°50'26.1651"N, 46°54'36.7284"E).

***Agapanthia (Epoptes) villosoviridescens giresunica* ssp. n.**

Figs 20-21, Map 3

Type locality. Turkey, Giresun province, Kumbet, 40°32'41.4294"N, 38°26'2.0124"E, 1748 m.

Description. The subspecies is characterized by matte black elytra without bluish luster; antennae reaching elytral apex by 7th-8th joints in males, in females - by 9th-10th joints; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints never reddish; 3rd antennal joint without apical setae concentration; elytral cuticle usually with distinct microsculpture; recumbent elytral pubescence moderately developed; erect elytral setae very short, nearly indistinct; antennae in males reaching elytral apex by 8th joint,



Figs 20-21. *A. (E.) v. giresunica* **ssp. n.**: 20. Holotype, male, Giresun province, Kumbet, 40°32'41.4294"N, 38°26'2.0124"E, 1748 m, 16.6.2002, N. Auvray; 21. Paratype, female, S Giresun, Kumbet, 1700 m, 26.6.1995, N. Auvray.

M.A. Lazarev

in females - by 10th-11th joints; body length in males: 12.7-14.8 mm, in females: 14.2-18.2 mm.

Material. Turkey: Holotype, 1 male, Giresun province, Kumbet, 40°32'41.4294"N, 38°26'2.0124"E, 1748 m, 16.6.2002, N. Auvray - ML; 18 paratypes (ML, SM & MD); 1 male, 2 females with the same label; 2 males, 3 females, S Giresun, Kumbet, 1700 m, 26.6.1995, N. Auvray; 2 males, 2 females, Kumbet, (Giresun), 1700 m, 40.54484°N, 38.43389°E, 2.7.2001, N. Auvray; 1 male, 1 female, Giresun, Kumbet, 21.6.1994, C. Auvray; 1 female, Giresun, Kumbet, 29.6.1994, C. Auvray - MD; 1 female, S Giresun, Pinarlar env., 950 m, 40.6543°N, 38.3661°E, 20.5.-10.6.2012, J. Hron, S. Murzin; 1 male, 1 female, Giresun, Kumbet, 11.7.1996 - MD.

Distribution. North-Eastern Turkey, Giresun province, Kumbet environs and Pinarlar environs.

Etymology. The new taxon is named after the province of the type locality.

***Agapanthia (Eoptes) villosoviridescens shankhizai* ssp. n.**

Figs 22-23, Map 3

Type locality. Turkey, Denizli province, eastern edge of Denizli.

Description. Antennae in males protruding beyond elytral apex with 6 joints, about one half longer than elytral length; in females antennae reaching elytral apex by 9th joint; basal parts of antennal joints with very fine pale pubescence, slightly reddish; erect apical setae of 3rd antennal joint distinctly condensed apically; prothorax with wide yellow central stripe; in male about 1.1 times wider at bases than long, in females - about 1.2 times; elytra with poorly developed pubescence and short dense erect setae; setae patches of recumbent pubescence hardly pronounced; elytral microsculpture poorly developed; body length in male: 17.2 mm; in females: 17.4-18.5 mm.

Material. Holotype, 1 male, Turkey, Denizli province, eastern edge of Denizli, 20.5.2015, E. Shankhiza - ML. 2 paratypes; 2 females, with the same label - MD & ML.

Distribution. South-Western Turkey, Denizli province.

Etymology. The new taxon is dedicated to E.V. Shankhiza, who collected the type series.



Figs 22-23. *A. (E.) v. shankhizai* **ssp. n.**: 22. Holotype, male, Turkey, Denizli province, eastern edge of Denizli, 20.5.2015, E. Shankhiza; 23. paratype, female with same label.

M.A. Lazarev

***Agapanthia (Epopetes) villosoviridescens gazanchidisi* Lazarev,
2021, stat. n.**

Figs 24-25, Map 4

Agapanthia (Epopetes) gazanchidisi Lazarev, 2021: 31 - "Eastern Greece, Dasochori env. 40°53'48.67"N, 24°48'26.12"E".

Type locality. Eastern Greece, Dasochori environs, 40°53'48.67"N, 24°48'26.12"E.

Description. Body moderately elongated; antennae very thin, black, with disperse setae tufts, in males reaching beyond elytral apices by 5 joints, in females - by 3 joints; 3rd antennal joint slightly lightened basally in Bulgarian specimens; 1st and 2nd joints covered with black pubescence; about three basal fourth of 3rd joint covered with pale fine recumbent pubescence, apical fourth with black pubescence; whole length of 3rd joint with long suberect setae concentrated apically; others joints covered with white pubescence to about half; 3rd antennal joint is the longest, 4th and 5th joints both shorter than 1st; prothorax about as long as its basal width, slightly convex laterally; pronotum with dense central and lateral, moderately wide yellow lines, less pronounced in Greek specimens; pronotal punctation regular, very dense, but not conjugated; elytra in males about 3.1 times longer than wide, in females - 3.0 times, parallel sided; with distinct microsculpture with nearly indistinct, small transverse yellow patches (better developed in Bulgarian specimens) and glabrous in between; with numerous erect black setae diminished apically and sometimes totally disappearing in posterior elytral half; elytral apices rounded; elytral punctation very dense, partly transversally conjugated; body length in males: 10.8-15.8 mm, body length in females: 12.4-17.7 mm.

Material. Greece: Holotype, 1 male, Eastern Greece, Dasochori env. 40°53'48.67"N, 24°48'26.12"E, 5.7.2021, V. Gazanchidis leg. - ML; 21 paratypes; 2 males (VG), 1 female (ML) with same label; 1 female, Macedonia, Katerini dist., Paralia, 6.6.1997, J. Macek leg. - SM; **Bulgaria:** 1 female, Tchernavata Stena reserve, 41°54'36"N, 24°52'33"E, 1213 m, 29.6.2014, T. Ljubomirov leg. - MD; 1 female, W Popkralevo vill., 43°59'38"N, 27°20'34"E, 50 m, 13.5.2012, T. Ljubomirov leg. - MD; 1 male, 1 female, N Sudievo, 42°40'35"N,

M.A. Lazarev

27°19'27"E, 137 m, 21.5.2012, T. Ljubomirov leg. - MD; 3 males, 4 females, Lozenska Planina Mts., SE German vill., 780 m, 17.6.2004, T. Ljubomirov leg. - MD; 1 female, E Stroumeshnitsa vill., 41°23'N, 23°03'E, 170 m, 16.6.2009, T. Ljubomirov leg. - MD; 1 male, SW Gabrovo vill., 41°52'10"N, 22°56'31"E, 1029 m, 8.6.2012, T. Ljubomirov leg. - MD; 1 female, E Kayazhevo, 42°06'39"N, 26°31'14"E, 99 m, 24.6.2012, T. Ljubomirov leg. - MD; 1 female, Etropolevska Planina Mts., Ravna River riverside, 42°49'N, 23°49'E, 610 m, 6.6.2006, T. Ljubomirov leg. - MD; 1 female, NW Vassil Levsky vill., 43°57'39"N, 27°21'47"E, 125 m, 13.5.2012, T. Ljubomirov leg.; 1 female, Kozhuch, 17.5.1983, J. Ganev leg. - MD.

Distribution. The taxon is distributed in eastern Greece and in Bulgaria.

***Agapanthia (Epopetes) villosviridescens markusi* Rapuzzi, Sama & Kotán, 2013, stat. n.**

Figs 26-27, Map 4

Agapanthia (Epopetes) markusi Rapuzzi, Sama & Kotán, 2013: 583 - "Greece, Ipiros, Ioannina pref., 7 Km SW Metsovo, 1360 m", Greece: Ipiros, Varnous Mts., Trikala, Ioannina, Florina, Kastoria, Pindos, Macedonia; Steiner & Schmid, 2013: 2 "Griechenland"; Danilevsky, 2020: 303 - Albania, Greece.

Agapanthia markusi, Kovács, 2015: 53 - "Albania, Korçë district, Opari area, Moglicë, E of the village, 40°42'25.2", 20°25'04.6" 525 m".

Type locality. Greece, Epirus, Ioannina, 7 km SW Metsovo, 1360 m.

Description. Antennae relatively short, about one third longer than elytra, reaching elytral apex by 8th joints in males, in females - by 10th joints; basal parts of antennal joints with very fine pale pubescence, and look rather dark; basal parts of middle antennal joints often reddish; 3rd antennal joint with apical setae concentration; prothorax in males about as long as wide, and slightly widened posteriorly; in females prothorax transverse with wider hind part; pronotum glabrous, without central setae stripe; elytra with indistinct recumbent pubescence, but with dense erect setae present up to the apex; elytral punctation very dense, nearly conjugated; microsculpture sometimes distinct; body length in males: 10.4-14.5 mm; in females: 12.8-15.1 mm.

A. (E.) v. markusi Rapuzzi, Sama & Kotán, 2013 is very

M.A. Lazarev

close to *A. (E.) v. gazanchidisi* Lazarev, 2021, but differs by several small characters: *A. (E.) v. gazanchidisi* is distinctly narrower, pronotal setae stripe better developed, humeral angles more obliterated, elytral punctation finer.

Material. Greece: 2 males, 3 females, Pindos, Metsova, Katara Pass, 1700 m, 5.7.2008 - MD; 1 male, Kastoria, 31.5.2008 - MD.

Distribution. According to the original description, known localities are: Greece: Ipiros, Ioanina pref., 7 km SW Metsovo, 1360 m; Varnous Mts., 1450 m, Agios Germanos; Trikala, Katara pass; Ioannina, Metsovo e Grevena; Trikala, Katara pass, 1400-1700 m; Florina, Pisoderion, Agios Triados, 1400 m; Ioannina, Katara pass, 1650 m, 39°47'48''N 21°13'49''E; Kastoria, Mt. Vernon, 1900 m; Pindos, Peristeri, 1400 m; Ipiros, Aoos lake; Ipiros, Milia; Macedonia, pref. Imathia, Mt. Vermio, 6 km W Naousa, 1041 m; Ipiros, pref. Ioannina, 2 km W Fourka, 1450 m. Albania: Korçë district, Opari area, Moglicë, E of the village, 40°42'25.2'', 20°25'04.6'', 525 m.



Figs 24-25. *A. (E.) v. gazanchidisi* Lazarev, 2021, **stat. n.**:
24. Holotype, male, Eastern Greece, Dasochori env. 40°53'48.67"N,
24°48'26.12"E, 5.7.2021, V. Gazanchidis leg.; 25. paratype, female
with same label.



Figs 26-27. *A. (E.) v. markusi* Rapuzzi, Sama & Kotán, 2013, **stat. n.**:
26. males, Greece, Pindos, Metsova, Katara Pass, 1700 m, 5.7.2008;
27. female with same label.

M.A. Lazarev

**Key to *Agapanthia (Epoptes) villosoviridescens* (DeGeer, 1775)
subspecies**

- 1(2) Elytra usually with relatively dense pubescence, often totally hiding cuticula; body length: 10.2-21.5 mm.....
.....*A. v. villosoviridescens* (DeGeer, 1775)
- 2(1) Elytra with scattered pubescence, shining cuticula fragments always distinct.
- 3(4) Elytral pubescence hardly visible, often indistinct; bluish luster usually more or less pronounced; body length: 11.2-18.7 mm...
.....*A. v. subnigra* Pic, 1890, **stat. n.**
- 4(3) Elytral pubescence always distinct.
- 5(11) Erect elytral pubescence very short.
- 6(10) Antennae with reddish basal parts of middle joints (only one female known).
- 8(9) Prothorax nearly cylindrical (in male and in females), about as wide anteriorly as posteriorly, about 1.1-1.2 times wider basally than long; body length: 17.2-18.5 mm.....
.....*A. v. shankhizai* **ssp. n.**
- 9(8) Prothorax in females strongly widened posteriorly; humeral elytral grey stripe often distinct; body length: 10.5-21.5 mm.....
.....*A. v. helianthi* Plavilstshikov, 1935, **stat. n.**
- 10(6) Antennae never with reddish basal parts of middle joints; body length: 12.7-18.2 mm.....
.....*A. v. giresunica* **ssp. n.**
- 11(5) Erect elytral pubescence well developed back to the apex.
- 12(15) Antennae relatively short, about one third longer than body in males.
- 13(14) Antennae never with reddish basal parts of middle joints; body length: 11.2-18.1 mm.....
.....*A. v. syunika* **ssp. n.**
- 14(13) Antennae usually with reddish basal parts of middle joints; body length: 10.4-15.1 mm.....
.....*A. v. markusi* Rapuzzi, Sama & Kotán, 2013, **stat. n.**
- 15(12) Antennae relatively long, about half longer than body in males.
- 16(19) Elytra with distinct microsculpture.
- 17(18) 3rd antennal joints with disperse setae tufts; elytra without bluish luster; body length: 10.8-17.7 mm.....

M.A. Lazarev

-*A. v. gazanchidisi* Lazarev, 2021, **stat. n.**
18(17) 3rd antennal joints with distinct setae tufts; elytra with poor
bluish luster; body length: 14.5-16.2 mm.....
.....*A. v. hodeki* Danilevsky, 2018
19(16) Elytra without microsculpture.
20(21) 3rd antennal joints with dense, elongated setae tufts; body
length: 12.3-17.5 mm.....
.....*A. v. murzini* **ssp. n.**
21(20) 3rd antennal joints with dispers, shortened setae tufts; body
length: 10.3-16.7 mm.....
.....*A. v. lederi* Ganglbauer, 1884

Acknowledgments. I am deeply indebted to many my friends and colleagues who tool parts in the taxonomy discussions and supplied me with the specimens from their collections: M.L. Danilevsky (A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow), V.Yu. Gazanchidis (Moscow), A.I. Gubin (Donetsk Botanical Garden), A.A. Gusakov (Zoological Museum of Moscow State University), S.V. Murzin (Moscow), E.V. Shankhiza (Moscow), A.V. Shamaev (Moscow), V.E. Ustinov (Moscow).

I am very grateful to Gérard Tavakilian and Christophe Rivier (Muséum National d'Histoire Naturelle, Paris) who arranged all photos of the holotype of *Agapanthia subnigra* Pic, 1890, and to Johannes Bergsten, Docent and Senior Curator of the Department of Zoology in Swedish Museum of Natural History (Stockholm) for supplying me with photos of the holotype of *Cerambyx villosoviridescens* DeGeer, 1775.

REFERENCES

- Abdurakhmanov Sh.G. 2012. Longhorn beetles of the Republic of Dagestan (Coleoptera, Cerambycidae) (species composition and geographical distribution). - The South of Russia: ecology, development. 3: 20-34.
- Aurivillius Ch. 1923. Cerambycidae: Lamiinae. II. Coleopterorum Catalogus pars 74 [Vol. 23] II: 323-704. W. Junk & S. Schenkling, Berlin.
- Aleksanov V.V., Alekseev, S.K., Perov V.V. & Vezenichev S.V. 2020. Preliminary list of invertebrates of the natural sanctuary «pine forests on the shifting sands» (Peremyshlsky district of Kaluga region). Pp. 16-41, 3 pls. - In: Inventory of biological diversity in specially protected natural areas of the Kaluga region: collection of scientific articles. Series "Cadastral and monitoring studies of biological diversity in the Kaluga region". Vol. 6. Kaluga: LLC "Vash Dom". 216 pp., ill. [in Russian]
- Aleksandrowicz O., Pisanenko A., Ryndevich S. & Saluk S. 2023. The Check-list of Belarus Coleoptera. Slupsk: Pomeranian University. 190 pp.
- Alekseev S.K. & Maryutin V.G. 2019. Longhorn beetles (Coleoptera: Cerambycidae) of the federal natural monument "Kaluga City Forest". - Proceedings of the Mordovia State Nature Reserve. 23: 3-30.
- Alekseev S.K., Perov V.V., Semenov V.B. & Aleksanov V.V. 2020. Beetles (Insecta: Coleoptera) sampled by window traps in the forests of the middle reaches of the Vytebet river in the Kaluga region. Pp. 76-133, 3 pls. - In: Inventory of biological diversity in specially protected natural areas of the Kaluga region: collection of scientific articles. Series "Cadastral and monitoring studies of biological diversity in the Kaluga region". Vol. 6. Kaluga: LLC "Vash Dom". 216 pp., ill. [in Russian]
- Alekseev V.I. 2022. The beetle fauna (Insecta: Coleoptera) of the Svetlogorsk Forest (Russia: Kaliningradskaya Oblast) at the beginning of the XXI century: high biodiversity and protection necessity. - Euroasian entomological journal. 21 (1) (2021): 1-16.
- Alexandrovitch O.R., Lopatin I.K., Pisanenko A.D., Tsinkevitch V.A. & Snitko S.M. 1996. Catalogue of Coleoptera (Insecta) of Belarus. Minsk: FFR RB. 103 pp.
- Allemand R., Chevin H. & Withers P. 2006. Inventories of entomofauna grâce aux piscines. - L'Entomologiste. 61 (6) (2005): 273-285.
- Althoff J. & Danilevsky M.L., 1997 A check-list of Longicorn beetles (Coleoptera, Cerambycoidea) of Europe. Slovensko Entomolosko Društvo Stefana Michielija. Ljubljana. 64 pp.
- Antipova L.F. 2011. Coleopterous fauna of the Longicorn family (Coleoptera: Cerambycidae) of Pskov Region. - Pskov Regionological Journal. 12: 70-75. [in Russian]
- Association Champenoise de Sciences Naturelles (ACSN) 2007. Compte-rendu de la sortie annuelle de la Société entomologique de France des 5, 6 et 7 juin 2004 dans le département de l'Aube (Coleoptera, Heteroptera). - L'Entomologiste. 63 (3): 103-113.
- Bacal S., Burduja D., Buşmachi G., Cebotari C. & Merkl O. 2020. Longhorn beetles in the entomological collections of the Republic of Moldova

M.A. Lazarev

- (Coleoptera: Cerambycidae). - *Folia Entomologica Hungarica*. 81:43-72.
- Barševskis A. & Lecka K. 2019. To the knowledge of Longhorn Beetles (Coleoptera: Cerambycidae) Fauna of Latvia. - *Acta Biologica Universitatis Daugavpiliensis*. 19 (2): 279-285.
- Bartenev A.F. 2004. [A review of the long-horned beetles species (Coleoptera: Cerambycidae) of the fauna of Ukraine]. - *Izvestiya Kharkovskogo Entomologicheskogo Obshchestva* [The Kharkov Entomological Society Gazette]. 11 (1-2) (2003): 24-43. [in Russian]
- Bartenev A.F. 2009. Longicorn-beetles of Left-Bank Ukraine and Crimea. Kharkov: Kharkov National University. 405 pp. [in Russian]
- Bartenev A.F. & Terekhova V.V. 2011. [An addition and remarks to the fauna of cerambycid beetles (Coleoptera, Cerambycidae) of Left-bank Ukraine and Crimea. - *The Journal of V.N. Karazin Kharkiv National University*]. Series: biology. 13 (947): 133-146. [in Russian]
- Bense U. 1995. Longhorn beetles. Illustrated key to the Cerambycidae and Vesperidae of Europe. Weikersheim: Markgraf Verlag. 512 pp.
- Bilý S. & Mehl O. 1989. Longhorn Beetles (Coleoptera, Cerambycidae) of Fennoscandia and Denmark. - *Fauna Ent. Scandinavica*. 22: 1-203.
- Biström O. & Väisänen R. 1985. Expansion of *Agapanthia villosoviridescens* to Finland (Coleoptera, Cerambycidae). - *Notulae Entomologicae*. 65: 156-157.
- Bogdanov-Katkov N.N., 1917. To the fauna of Longicorn-beetles of Kuban Region. - *Archives of Caucasian Museum*. 11: 33-53. [in Russian]
- Bolshakov L.V. & Dorofeev Yu.V. 2004. Longhorn beetles (Hexapoda: Coleoptera: Cerambycidae) of Tula Area. - *Biodiversity of Tula region on the boundary of centuries. Collection of the scientific works*. 4. Tula: 8-30. [in Russian]
- Breuning S. 1961. 4. Lieferung, pp: 183-284. - In: S.Breuning, 1958-1969. *Catalogue des Lamiaires du Monde* (Col. Céramb.). Tutzing bei München, Verlag des Museums G. Frey: 1069 pp.
- Brisout de Barneville C. N. F. 1863: [new taxa]. - In: Grenier A.: *Catalogue des coléoptères de France par M. le Dr. A. Grenier et matériaux pour servir à la faune des coléoptères français*. Paris: A. Grenier, iv + 3-79 + 1-135 pp.
- Brustel H., Berger P. & Cocquempot Ch. 2003. *Catalogue des Vesperidae et des Cerambycidae de la faune de France* (Coleoptera). - *Annales de la Société Entomologique de France*, Paris (N. S.). 38 (4) (2002): 443-461.
- Bukejs A. 2011. Materials about the fauna of beetles (Insecta: Coleoptera) of Naujene rural municipality (Daugavpils district, Latvia). Part 3. - *Acta Biologica Universitatis Daugavpiliensis*. 11 (1): 10-21.
- Burakowski B. & Nowakowski E. 1981. Longicorns (Coleoptera, Cerambycidae) of Warsaw and Mazovia. - *Memorabilia Zoologica*. 34: 199-218.
- Carrière J. 1996. A propos d'*Agapanthiini*: note biologique complémentaire. (Coleoptera, Cerambycidae). - *Lambillionea*. 96 (3) 2: 561-570.
- Carrière J. 2003. *Chalcidiens oophages et Agapanthiini*: Note étho-biologique complémentaire. (Hymenoptera, Chalcididae - Coleoptera, Cerambycidae). - *Lambillionea*. 103 (2): 253-262.
- Carrière J. 2005. Biogéographie et dynamique des populations Héraultaises d'*Agapanthia kirby* (Gyllenhal, 1817): approche physiologique comparative

- de l'oviposition (Coleoptera, Cerambycidae). - Lambillionea. 105 (3) 2: 463-470.
- Carrière J. 2009. *Agapanthia villosoviridescens* (DeGeer, 1775) et *Zeuxia zernyi* (Mesnil, 1963) sur les monts d'Aubrac (Aveyron, Cantal, Lozère): approche d'un parasitisme de masse. (Coleoptera, Cerambycidae - Diptera, Tachinidae). - Lambillionea. 109 (3) 2: 342-347.
- Carrière J. 2012. *Agapanthia villosoviridescens* (DeGeer, 1775) et *Zeuxia zernyi* (Mesnil, 1963) sur les Monts d'Aubrac: Complément éthologique (Coleoptera, Cerambycidae - Diptera, Tachinidae). - Lambillionea. 112 (1): 49-56.
- Cartier G. 2002. Contribution à l'expertise du patrimoine naturel de Rueil-Malmaison: (codage Z.N.I.E.F.F.). - L'Entomologiste. 58 (3-4): 161-189.
- Cartier J.-C. & Cartier G. 2016. Contribution à l'étude de l'entomofaune de la Vienne. Les Cerambycidae de la forêt de Vouillé-Saint-Hilaire (Coleoptera Cerambycidae). - L'Entomologiste. 72 (4): 221-234.
- Chernyshov A.P. 1930. List of beetles of the Kaluga province. - Insect fauna of the former Kaluga province. 2: 5-16.
- Chevrolat L.A.A. 1881. Séance du 10 août 1881. [note sur le genre *Agapanthia*, comprenant la description de trois nouvelles espèces voisines de l'*irrorata* Fabricius] - Bulletin de la Société Entomologique de France, Paris. I (6): xcv-xcvi.
- Chyubchik V.Yu. 2010. The annotated list of longicorn-beetles (Coleoptera: Cerambycidae) of the Central Moldova. - Russian Entomological Journal. 19 (2): 111-118.
- Colas G. 1928. Coléoptères peu communs capturés en forêt de Saint-Germain (2e note). - Bulletin de la Société Entomologique de France, Paris: 172-179.
- Danilevsky M.L. 1992. New species of Cerambycidae from Transcaucasia with some new data (Insecta: Coleoptera). - Senckenbergiana Biologica. 72 (1991): 107-117.
- Danilevsky M.L. 1993. Taxonomic and zoogeographic notes on the family Cerambycidae (Coleoptera) of Russia and adjacent regions. - Russian Entomological Journal. 1 (1992): 37-39.
- Danilevsky M.L. 2009a. Species Group Taxa of Longhorned Beetles (Coleoptera, Cerambycidae) Described by N.N. Plavilstshikov and Their Types Preserved in the Zoological Museum of the Moscow State University and in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg. - Entomological Review. 88 (3): 630-663.
- Danilevsky M.L. 2009b. Species Group Taxa of Longhorned Beetles (Coleoptera, Cerambycidae) Described by N.N. Plavilstshikov and Their Types Preserved in the Zoological Museum of the Moscow State University and in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg. - Entomological Review. 89 (6): 689-720.
- Danilevsky M.L. 2010. New Acts and Comments. Cerambycidae, Pp. 43-49. - In: I. Löbl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924 pp.
- Danilevsky M.L. 2012. Additions and corrections to the new Catalogue of Palaearctic Cerambycidae (Coleoptera) edited by I. Löbl and A. Smetana,

M.A. Lazarev

2010. Part. V. - Humanity space. International almanac. 1 (3): 695-741.
- Danilevsky M.L. 2020. Catalogue of Palaearctic Coleoptera. volume 6/1. Chrysomeloidea I (Vesperidae, Disteniidae, Cerambycidae) Updated and Revised Second Edition. Mikhail L. Danilevsky editor. Koninklijke Brill, Leiden 2: i-xxviii + 1-712.
- Danilevsky M.L. 2023. Longicorn beetles (Coleoptera, Cerambycoidea) of Russia and adjacent countries. Part 3. IAE, Moscow. 873 p. [in Russian]
- Danilevsky M.L. & Miroshnikov A.I. 1985. Timber-Beetles of Caucasus (Coleoptera, Cerambycidae). Key. Krasnodar: 419 pp. [in Russian]
- Danilevsky M.L. & Smetana A. 2010. [Cerambycidae taxa from Russia and countries of former Soviet Union, and Mongolia] subfamily Lamiinae [without Dorcadionini]: Pp. 207-334. - In: I. Löbl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924 pp.
- Debreuil M. 2006. Compte rendu de la sortie annuelle de la Société Entomologique de France des 18, 19 et 20 juin 2005 dans les départements de l'Aude et des Pyrénées-Orientales. - Rutilans. 9 (1): 29-40.
- Dedyukhin S.V., Nikitsky N.B. & Semenov V.B. 2005. Checklist of the beetles (Insecta, Coleoptera) of Udmurtia. - Euroasian Entomological Journal. 4 (4): 293-315.
- DeGeer C. 1775. Mémoires pour servir à l'histoire des insects Stockholm, Imprimerie Pierre Hesselberg. 5: v + 448 pp., 16 pls.
- Denton J. 2002. Some additional longhorn records (Coleoptera: Cerambycidae). - Entomologist's Gazette. 53: 265-268.
- Denux O. 2005. Contribution à l'inventaire des Cerambycidae (Insecta, Coleoptera) du Parc naturel régional du Perche. - L'Entomologiste. 61 (5): 227-237.
- Diego Barquín J. & Martínez-Porres Cáceres R. 2005. Cerambycoides nuevos para Cantabria, Burgos y Palencia (España) (Coleoptera, Cerambycidae). - Lambillionea. 105 (1): 143-145.
- Dobrosavljević J. & Mihajlović L. 2014. Contribution to the knowledge on Longhorn Beetles (Coleoptera, Cerambycidae) of Serbia, with reference to protected species. - Časopis Šumarstvo. 1-2: 21-31. [in Serbian]
- Donovan E. 1797. The natural History of British Insects. - Rivington, London. 6: i-lxxxvi + 1-6, pls 181-216.
- Dorofeev Yu.V. 1998. Longhorn beetles (Coleoptera, Cerambycidae) of the Tula region. Tula: Ball. 34 pp. [in Russian]
- Dorofeev Yu.V. 2003. The check-list of beetles species (Hexapoda: Coleoptera) of Tula town and its nearest environs. Pp. 13-35. - In: Biological diversity of the Tula region at the turn of the century. Collection of scientific papers: Issue 3.-Tula: Grif and K, 2003. 84 pp. [in Russian]
- Dovhaniuk I.Ya. & Zamoroka A.M. 2020. The longhorn beetles (Coleoptera: Cerambycidae) of National Park «Kremenetski Hory». - Proceedings of the State Natural History Museum, Lviv. 36: 129-140.
- Drumont A. & Leduc F. 2011. Note sur la présence en Belgique d' *Agapanthia* (Epopetes) *dahli* (Richter, 1820) (Coleoptera, Cerambycidae, Lamiinae). - Lambillionea. 110 (3) (2010): 293-296.
- Dunskis A. & Barševskis A. 2018. Catalogue of longhorn beetles (Coleoptera:

M.A. Lazarev

- Cerambycidae) of Latvia. - *Acta Biologica Universitatis Daugavpiliensis*. 18 (2): 165-198.
- Dyukin S. 1912. Longhorn beetles of the Penza province (Coleoptera, Cerambycidae). - *Russian Entomological Review*. 12 (2): 280-282.
- Egorov L.V. 2005. The longicorn beetles (Coleoptera: Cerambycidae) of Chuvash Republic: systematic check-list of the species. - *Eversmannia. Entomological research in the European Russia and adjacent regions*. 2: 9-23.
- Egorov L.V., Ruchin A.B., Semenov V.B., Semionenkov O.I., Semishin G.B. 2020. Checklist of the Coleoptera of Mordovia State Nature Reserve, Russia. - *ZooKeys*. 962: 13-122.
- Ehnström B. & Holmer M. 2007. Nationalnyckeln till Sveriges flora och fauna. Skalbaggar: Långhorningar Coleoptera: Cerambycidae. ArtDatabank, SLU, Uppsala: 1-302, illustré. The Encyclopedia of the Swedish Flora and Fauna. Coleoptera: Cerambycidae.
- Ermolaev I.V. & Georgi B.M. 2009. To the fauna of longhorned beetles (Coleoptera, Cerambycidae) of Izhevsk. - *Bulletin of Mordovian University. Biological Sciences Series*. 1: 25-27.
- Facon D. 2016. Les Longicornes (Coleoptera, Cerambycidae) du Montreuillois: données nouvelles pour la période 2007-2016. - *Bulletin de la Société Entomologique du Nord de la France*. 361: 2-14.
- Fasulati K.K. 1955. Ecological and faunal review of Cerambycidae of Transcarpathia. - *Fauna and animal world of Soviet Carpathians. Science Notes of Uzhgorod State University*. 11: 105-144. [in Russian]
- Fischer von Waldheim G. 1806. Nouvelles espèces d'Insectes de la Russie. - *Mémoires de la Société des Naturalistes de l'Université Impériale de Moscou*. 1 (1805): 12-17, pl. II.
- Fomichev A.I. 1983. List of beetle species of Kalmykia and adjacent areas. - Manuscript deposit. in VINITI No. 1921-B83. 61 pp.
- Fuchs E. & Breuning S. 1971. Die Cerambycidenausbeute der Anatolienexpeditionen 1966-67 des Naturhistorischen Museums, Wien. - *Annalen des Naturhistorischen Museums, Wien*. 75: 435-439.
- Ganglbauer L. 1884. Bestimmungs-Tabellen der europäischen Coleopteren. VIII. Cerambycidae. (Schluss.) Mit Berücksichtigung der Formen Algiers und des paläarktischen Asiens, exclusive jener von Japan. - *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*. 33 (1883): 437-586.
- Gemminger M. & Harold E. von 1873. *Catalogus coleopterorum hucusque descriptorum synonymicus et systematicus*. - Munich. 10: 2989-3232 & index.
- Georgiev G., Gradinarov D., Gjonov I., Sakalian V. 2018. A check list and areography of longhorn beetles (Coleoptera: Cerambycidae) in Strandzha Mountain, Bulgaria and Turkey. - *Silva Balcanica*. 19 (1): 89-116.
- Georgiev G., Gradinarov D., Sivilov O., Gjonov I., Doychev D., Gashtarov V., Cvetkovska-Gjorgjievska A., Sakalian V. 2019. A check list and areography of longhorn beetles (Coleoptera: Cerambycidae) in Belasitsa Mountain, Bulgaria and North Macedonia. - *ZooNotes. Supplement* 8: 1-27.
- Georgiev G., Doychev D., Simov N., Guéorguiev B. & Bekchiev R. 2013.

M.A. Lazarev

- Contribution to the knowledge of cerambycid fauna (Coleoptera: Cerambycidae) of Belasitsa Mountain in Bulgaria. - *Silva balcanica*. 14 (1): 109-116.
- Gmelin J.F. 1790. Caroli a Linné Systema Naturæ per Regna tria Naturæ, secundum Classes, Ordines, Genera, Species, cum characteribus, differentiis, synonymis, locis. Classis V. Insecta. - Editio 13. Lipsiae, Georg Emanuel Beer. 1 (4): 1517-2224.
- Gnjatović I. & Žikić V. 2010. Cerambycids of Southeast Serbia (Coleoptera, Cerambycidae). - *Biologica Nyssana*. 1 (1-2): 111-115.
- Goggi G. 2006. Indagine faunistica sui Cerambycidi (Coleoptera, Cerambycidae) della Valsassina (Lecco, Lombardia). - *Giornale Italiano di Entomologia, Cremona*. 11: 315-323.
- Goggi G. 2007. Indagine faunistica sui Coleotteri del "Parco della Grigna Settentrionale" (Lecco, Lombardia). - *Giornale Italiano di Entomologia, Cremona*. 12: 75-91.
- Gorbunov P.Yu. & Olshvang V.N. 2008. Beetles of the Middle Urals: Guidebook. Yekaterinburg: Socrates Publishing House. 384 pp.
- Gorshkova V.P., Truchov D.A. & Volodchenko A.N. 2019. To the fauna of longhorn beetles (Coleoptera: Cerambycidae) of the nature defance object monument "Dyakovskiy Les" (Saratov Region). Pp. 32-38. - In: Entomological and parasitological investigations in Volga Region: Collected proceedings. Editor prof. V.V. Anikin. Saratov. No 16. 157 pp.
- Gouillard J. 2003. A propos des Longicornes du Gâtinais. - *L'Entomologiste*. 59 (4): 125-129.
- Goureau O. 1868. Séance du 9 décembre 1868. [insectes qui vivent dans le Seneçon aquatique]. - *Bulletin de la Société Entomologique de France*, Paris: cxiii-cxv.
- Gradinarov D. & Petrova Y. 2019. Longhorn beetles (Coleoptera: Cerambycidae) from Vrachanska Planina Mountains and Vrachanski Balkan Nature Park. In: Dimitar Bechev and Dilian Georgiev editors, Plovdiv University Press. Faunistic Diversity of Vrachanski Balkan Nature Park part 2. - *Zoonotes. Supplement*. 7: 59-80.
- Gradinarov D. & Petrova Y. 2020. Longhorn beetles (Coleoptera: Cerambycidae) in Sarnena Sredna Gora Mountains. In Dilian Georgiev, Dimitar Bechev & V. Yancheva (Eds.). Fauna of Sarnena Sredna Gora Mts, Part 1. - *Zoonotes. Supplement*. 9: 159-184.
- Gubin A.I. & Martynov V.V. 2023. Annotated List of Longhorn Beetles (Coleoptera: Cerambycidae) of Donbass. - *Field Biologist Journal*. 5 (2): 144-185.
- Gyllenhal L. 1817: [new taxa]. In: Schoenherr C. J.: *Synonymia Insectorum, oder Versuch einer Synonymie aller bisher bekannten Insecten; nach Fabricii Systema Eleutheratorum etc. geordnet. Erster Band. Eleutherata oder Käfer. Dritter Theil. Hispa-Molorchus*. Upsala: Em. Brucelius, 506 pp. + Appendix ad C. J. Schönherr *Synonymiam Insectorum*. Vol. 1. Pars 3. *Sistens descriptiones novarum specierum*, 11+ 266 pp., pls. 5,6.
- Haack R.A. 2017. Feeding Biology of Cerambycids. - In: Qiao Wang, *Cerambycidae of the World: Biology and Pest Management*. (3): 105-132.

- Haack R.A., Keena M.A. & Eyre D. 2017. Life History and Population Dynamics of Cerambycids. - In: Qiao Wang, Cerambycidae of the World: Biology and Pest Management. (2): 71-103, 11 figs.
- Hasegawa M. 2000. A note on *Agapanthia villosoviridescens* and *A. daurica*. - *Natura and Insects*, Tokyo. 35 (13): 13-18. [in Japanese]
- Heyrovský L. 1931. Beitrag zur Kenntnis der bulgarischen Cerambyciden. - *Mitteilungen aus den Königlichen naturwissenschaftlichen Instituten in Sofia - Bulgarien*. 4: 78-86.
- Humala A.E. & Polevoi A.V. 2009. On the insects fauna of south-east Karelia. - *Proceedings of the Karelian Scientific Center of the Russian Academy of Sciences*. 4: 53-75.
- Ilić N. & Ćurčić S. 2013. The Longhorn Beetles (Coleoptera: Cerambycidae) of Rtanj Mountain (Serbia). - *Acta entomologica serbica*. 18 (1/2): 69-94.
- Ilić N., Ćurčić S. & Stojanović D. 2013. The Longhorn Beetles (Coleoptera: Cerambycidae) of the Đerdap national park (Serbia). - *Acta entomologica serbica*. 18 (1/2): 95-127.
- Inglebert H. 2002. Catalogue des Coléoptères de Paris intra-muros "2001 Odyssées d'espèces". - *L'Entomologiste*. 58 (1-2): 1-132.
- Isaev A.Yu., Egorov L.V. & Egorov K.A. 2004. Beetles (Insecta, Coleoptera) of forest-steppe of Middle Volga. Catalogue. Ulianovsk: 72 pp. [in Russian]
- Jablokoff-Khnzorian S.M. 1961. Experience in restoring the genesis of the beetle fauna of Armenia. Yerevan: Publishing House of the Academy of Sciences of the Armenian SSR: 265 pp. [in Russian]
- Jakobson G.G. 1924. Annotationes synonymicae et systematicae de Coleopteris. - *Russkoe Entomologicheskoe Obozrenie*. 18: 237-243.
- Japoshvili G., Gordiashvili N., Injia S., Tsiklauri K. & Sulamanidze G. 2022. Updated annotated checklist of insects from Lagodekhi protected areas, Sakartvelo (Georgia). - *Munis Entomology & Zoology*. 17 (2): 792-841.
- Jałoszyński P., Kurzawa J., Wanat A. & Wanat M. 2014. Janusz Pluciński and his Coleoptera collections in the Museum of Natural History, University of Wrocław. - *Genus*. 25 (4): 673-693.
- Kalashian M.Yu. 2017. Materials on the fauna of the Reserve-Park Complex of the Ministry of Nature Protection of RA. II. Beetles of "Hankavan hydrological" State Sanctuary (Insecta: Coleoptera: Carabidae, Geotrupidae, Scarabaeidae, Buprestidae, Tenebrionidae, Cerambycidae). - *Humanity space. International almanac*. 6 (1): 38-45.
- Kalashian M.Yu. & Khalatyan A.A. 2018. Materials on the fauna of the Reserve-Park Complex of the Ministry of Nature Protection of RA. II. Beetles of «Jermuk hydrological» State Sanctuary (Insecta: Coleoptera: Carabidae, Geotrupidae, Scarabaeidae, Buprestidae, Tenebrionidae, Cerambycidae). - *Humanity space. International almanac*. 7 (2): 305-313.
- Kalyuzhnaya N.S., Komarov E.V. & Cherezova L.B. 2000. Coleoptera insects of the Lower Volga region. Volgograd. 204 pp. [in Russian]
- Karpiński L., Szczepański W.T., Plewa R., Marcin Walczak M., Hilszczański J., Kruszelnicki L., Łoś K., Jaworski T., Bidas M. & Tarwacki G. 2018. New data on the distribution, biology and ecology of the longhorn beetles from

- the area of South and East Kazakhstan (Coleoptera, Cerambycidae). - ZooKeys. 805: 59-126.
- Karpinsky A.Yu. 2003. Family Cerambycidae Latreille, 1802. Pp. 67-70. - In: Catalogue of the Invertebrata (Protozoa and Animalia) of Vladimir region: Vladimir. 128 pp. [in Russian]
- Kasatkin D.G. 2020. Contribution to the knowledge of the genus *Agapanthia* Audinet-Serville, 1835 (Coleoptera: Cerambycidae: Lamiinae) from the Near East and Transcaucasia. - Caucasian Entomological Bulletin. 16 (2): 233-249.
- Kasatkin D.G. & Arzanov Yu.G. 1997 "Der Bockkaffer (Cerambycidae). Material fur Fauna der Kaffer (Coleoptera) norden Kaukasus und untere Don." [wrong translation of the Russian title of the article; must be: "Die Bockkäfer (Cerambycidae) (Teil 2). Die Materialien zur Käferfauna (Coleoptera) des Nordkaukasus und des unteren Don] Records of Kharkov Entomological Society. 5 (2): 63-70.
- Kazjutschits A.V. 1988. New species of Longicorn Beetles (Coleoptera, Cerambycidae) from Transcaucasia. - Entomological Review. 67 (3): 583-584.
- Kiseleva E.F. 1926. About longhorned beetles in the vicinity of Tomsk. - News of Tomsk State University. 72 (2): 124-133. [in Russian]
- Kiseritzky V.A. 1915. Contribution à la faune des Coléoptères du gouvernement de Poltava. - Revue Russe d'Entomologie, Saint-Petersbourg. 15 (2): 167-184.
- Klausnitzer B., Klausnitzer U., Wachmann E. & Hromádka Z. 2016. Die Bockkäfer Mitteleuropas. Cerambycidae. Band 2: Die mitteleuropäischen Arten. - Die Neue Brehm-Bücherei. 499 (2): 3-303, 84, photos. VerlagsKG Wolf. Magdeburg.
- Kostin I.A. 1973. The Dendrophagus Beetles of Kazakhstan (Buprestidae, Cerambycidae, Ipidae). Alma-Ata: 288 pp.
- Kovács T. 1998. Magyarországi cincérek tápnövény- és lelőhelyadatai II. (Coleoptera: Cerambycidae). - Folia Historico-Naturalia Musei Matraensis. 22 (1997): 247-255.
- Kovács T. 2015. Three longhorn beetles new to the fauna of Albania (Coleoptera: Cerambycidae). - Folia Historico-Naturalia Musei Matraensis. 39: 53-54.
- Krasnobayeva T.P. 2009. List of the Longicorn Beetles (Coleoptera, Cerambycidae) of Samarskaya Luka. - Russian Entomological Journal. 17 (3): 295-298.
- Kulenko A.V. 2015. The Longhorn beetles (Cerambycidae) of the environs of Togliatti and Zhigulyovsk. - Humanity space. International almanac. 4 (5): 1091-1107.
- Kuleshov D.A. & Romanenko V.N. 2009. Longicorn beetles (Coleoptera, Cerambycidae) of the Tomsk region. - Bulletin of Tomsk State University. Biology. 4 (8): 29-40.
- Kutushev R.A. 2020. Analysis of data on species of the longhorned beetle family (Coleoptera, Cerambycidae) of the Republic of Tatarstan. Pp. 13-28. - In: Proceedings of the Kazan branch of the Russian Entomological Society. Issue 6. Kazan: Olitech LLC. 40 pp. [in Russian]
- Lacoste F. 2013. Un nouveau venu pour le département du Puy-de-Dôme (F-63) *Leiopus linnei* Wallin, Nylander & Kvamme, 2009 (Coleoptera,

M.A. Lazarev

- Cerambycidae). - Le Coléoptériste, Bulletin de liaison de l'ACOREP. 16 (3): 143.
- Landemaine D. 1999. Contribution à l'inventaire des Longicornes dans le département de la Mayenne (Coleoptera Cerambycidae). - L'Entomologiste. 55 (6): 241-250.
- Lazarev M.A. 2019. Holotypes and lectotypes of longhorned beetles (Coleoptera, Cerambycidae) stored at the Zoological Museum Moscow State University. - Humanity space. International almanac. 8 (10): 1210-1359. [in Russian]
- Lazarev M.A. 2021. A new species of *Agapanthia* (Epopetes Gistel, 1857) close to *A. villosoviridescens* (DeGeer, 1775) from South Europe. - Entomologische Blätter und Coleoptera. Volume 117: 31-34. [Entomologische Blätter für Biologie und Systematik der Käfer].
- Lagunov A.V. & Novozhenov Yu.I. 1996. Coleoptera fauna of Ilmen natural reserve. Miass. Ural Branch of Russian Academy of Sciences: 1-105. [in Russian]
- Lebedev A.G. 1906. Materials for the beetle fauna of the Kazan province. Part I. - Proceedings of the Russian Entomological Society. 37 (3-4): 352-438.
- Listvyagova N.A., Raykhert A.I., Skribchenko A.V. 2013. Catalog of the collection of longhorned beetles (Insecta, Cerambycidae, Lepturini) of the Zoological Museum of Khakass State University. N.F. Katanova (message 2). - Bulletin of N. F. Katanov Khakass State University. 6: 23-29. [in Russian]
- Löbl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924 pp.
- Lobanov A.L., 1973. Practical key of Longicorn-beetles of Perm Region. - Questions of Ecology and Teriology. Transactions of Perm Pedagogical Institute. 109: 69-87. [in Russian]
- Lobanov A.L., Danilevsky M.L. & Murzin S.V. 1982. Systematic list of longicorn beetles (Coleoptera, Cerambycidae) of the USSR. 2. - Revue Russe d'Entomologie. 61 (2): 252-277.
- Magdeev D.V. 2003. Fauna of Longicorn-Beetles (Coleoptera, Cerambycidae) of Samara Region.- Local history notes, XI. Samara Regiona. Local History Museum. "Fine Design", Samara: 202-208. [in Russian]
- Magdeev D.V. 2007. Cerambycidae. Pp. 173-179.. - In: Cadastre of invertebrates of Samarskaya Luka : Tutorial / edited by G.S. Rozenberg. Samara, 2007. 471 pp.
- Marquet J. 2001. Contribution à l'inventaire des insectes du département de l'Indre. Liste des Coléoptères du PNR Brenne. - L'Entomologiste. 57 (3-4): 101-122.
- Martynov V.V. & Pisarenko T.A. 2004. A review of the fauna and ecology of the long-horned beetles (Coleoptera: Cerambycidae) of southeast Ukraine. - The Kharkov Entomological Society Gazette. 11 (2003) (1-2): 44-69.
- Matveev V.A. 1998. Xilophagous insects of Volga-Viatka region. Joshkar-Ola. 93 pp.
- Mazurov S.G. 2017. Insects of the Krasninsky district of the Lipetsk region. Vol. 2. Coleoptera (Coleoptera). Yelets: Typography LLC. 319 pp. [in Russian]
- Micas L. 2005. Le vallon de la Moulinière (Alpes-de-Haute-Provence): biodiversité coléoptérologique. I. Cerambycidae. - L'Entomologiste. 61 (4): 145-148.
- Micas L. & Van Meer C. 2020. Quelques données originales de Cerambycidae du Sud de la France (Coleoptera Cerambycidae). - L'Entomologiste. 76 (3):

- 137-142.
- Migliaccio E., Georgiev G. & Gashtarov V. 2007. An annotated list of Bulgarian Cerambycids with special view on the rarest species and endemics (Coleoptera: Cerambycidae). - *Lambillionea. Revue internationale d'entomologie*. 107 (1), supplément 1: 1-79.
- Miller E. & Zubowsky N. 1910. V. Materialien zur Kenntniss der entomologischen Fauna Bessarabiens. - *Travaux de la Société des naturalistes et des Amateurs des sciences naturelles de Bessarabie*. V.II (1908/9), P. 1: 31-150. [in Russian]
- Miller E. & Zubowsky N. 1917. VII. Materialien zur Kenntniss der entomologischen Fauna Bessarabiens. - *Travaux de la Société des naturalistes et des Amateurs des sciences naturelles de Bessarabie*. VI (1914-1915): 119-150. [in Russian]
- Miroshnikov A.I. 1984. New data on the Longicorn beetles (Coleoptera, Cerambycidae) of the Northwestern Caucasus. - *Revue d'Entomologie*. 63 (2): 273-281.
- Móczár M. 1948. Die Käferfauna von Kassa und Umgebung. - *Fragmenta Faunistica Hungarica Budapest*. 11 (3-4): 90-94.
- Molnar B., Szerényi G. & Szövényi G. 2016. Az érdi Fundoklia-völgy rovarfaunisztikai kutatása. - *Állattani Közlemények*. 101 (1-2): 43-64.
- Mosolov N.A. 1902. Beetles: List of beetles collected in Podolsk district. Compiled by N.A. Mosolov. M.: typo-lithography of the partnership I.N. Kushnerev and Co., 1902. 24 pp.
- Mouthiez J. & Péru L. 2008. Liste des Longicornes observés dans le département du Loiret (Coleoptera Cerambycidae). - *L'Entomologiste*. 64 (2): 109-111.
- Negrobov S.O., Tzurikov M.N., Logvinovsky V.D., Fomichev A.I., Prokin A.A. & Gilmutdinov K.S. 2005. Order Coleoptera. - *Cadastre of Invertebrata of Voronezh region*. Voronezh: 534-673.
- Niisato T. 2001. Collecting Records of Cerambycid Beetles (Coleoptera, Cerambycidae) from the Kuril Archipelago (3). - *Elytra*, Tokyo. 29 (1): 7-15.
- Novozhenov Yu.I. 1987. Fauna of Timber-Beetles of Ilmen Natural Reserve, South Urals. - *Fauna, Ecology of Invertebrata of Cheljabinsk Region*. Sverdlovsk. Ural Branch of Academy of Sciences of the USSR: 29-47.
- Obert I. 1874. A list of beetles found to this day in St. Petersburg and its environs. - *Proceedings of the Russian Entomological Society in Saint Petersburg*. 8 (1): 108-139. [in Russian]
- Ohbayashi N., Sato M. & Kojima K. 1992. An Illustrated Guide to Identification of Longicorn Beetles of Japan. Tokyo, Tokai University Press: 697 pp.
- Özdikmen H. 2007. The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae). Part I - Black Sea Region. - *Munis Entomology & Zoology*. 2 (2): 179-422.
- Özdikmen H. 2010. Longicorn beetles fauna of European Turkey: A revision to the list of Özdikmen, 2008 (Coleoptera: Cerambycidae). - *Munis Entomology & Zoology*. 5, Suppl.: 924-944.
- Özdikmen H. 2013. Turkish Agapanthiini Mulsant, 1839 with identification keys (Coleoptera: Lamiinae). - *Munis Entomology & Zoology*. 8 (1): 9-40.
- Paulus H. 1968. Beitrag zur Kenntnis der Larven und Puppen von Agapanthia

M.A. Lazarev

- violacea Fabricius und *Agapanthia villosoviridescens* DeGeer. - Entomologische Blätter. 64 (2): 70-85.
- Pavičević D., Ilić N. & Đurić M. 2015. Longhorn beetles of Serbia field guide. Zavod za zaštitu prirode & HabiProt, Belgrade: 1-249.
- Perrier R. 1964. Coléoptères. 2me Partie. - Delagrave, Seconde Edition de La Faune de la France illustrée. 6 (2): 1-230, 1100 figs.
- Peris-Felipo F.J., Moreno-Marí J., Oltra-Moscardó M.T. & Jimenez-Peydró R. 2008. Cerambycidos (Coleoptera: Cerambycidae) capturados en el Parque Natural de La Tinença de Benifassà (Castellón, España). - Boletín de la Asociación Española de Entomología, Salamanca. 32 (1-2): 95-116.
- Pesarini C. & Sabbadini A. 2004. Osservazioni sulla sistematica della tribù Agapanthiini Mulsant, 1839 (Coleoptera Cerambycidae). - Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano. 145 (1): 117-132, 16 figs.
- Pic M. 1890. Un peu d'Entomologie N. sp.? - L'Échange, Revue Linnéenne. 6 (63): 119-120.
- Pic M. 1909. Descriptions ou diagnoses et notes diverses - Suite. - L'Échange, Revue Linnéenne. 25 (290): 105-106.
- Pic M. 1910. Catalogue bibliographique et synonymique des longicornes d'Europe et régions avoisinantes: suite. Pp. 95-98 [pagination speciale]. - In: Matériaux pour servir à l'étude des longicornes. 7ème cahier, 2ème partie. Lyon: Imprimerie Jacquet Frères: 95-98 pp.
- Pic M. 1927. Notes diverses, descriptions et diagnoses (Suite). - L'Échange, Revue Linnéenne. 43 (428): 5-7.
- Planet L.M. 1924. Histoire Naturelle des Longicornes de France. - Encyclopédie Entomologique (Série A) 2: 1-386, 301 figs, 3 pls. Paul Lechevalier, Paris.
- Plavilstshikov N.N. 1929. Synonymische Bemerkungen über *Agapanthia*-Arten (Coleoptera, Cerambycidae). - Entomologisches Nachrichtenblatt. 3: 103.
- Plavilstshikov N.N. 1930a. Über die mit *Agapanthia villosoviridescens* Deg. verwandten Arten (Coleoptera, Cerambycidae). - Coleopterologisches Centralblatt. 4 (1929/1930): 130-137.
- Plavilstshikov N.N. 1930b. Die *Agapanthia*-Arten der palaearktischen Region. Bestimmungs-Tabellen der europäischen Coleopteren. 98. Heft. Troppau: Edmund Reitter's Nachfolger Emmerich Reitter, 40 pp.
- Plavilstshikov N.N. 1932. Timber-beetles - Timber Pests. Moscow, Leningrad: 200 pp. [in Russian]
- Plavilstshikov N.N. 1935. Eine neue *Agapanthia*-Art vom Kaukasus (Col., Cerambycidae). - Entomologische Blätter. 31: 250-253.
- Plavilstshikov N.N. 1948. A Key for Longicorn Beetles of Armenia. Erevan: 232 pp. [in Russian]
- Plavilstshikov N.N., 1965. 75-th Fam. Cerambycidae - Timber Beetles, Longicornes.- In: A Key to Insects of the European Part of the USSR, v. 2, Coleoptera and Strepsiptera. Moscow-Leningrad, "Nauka": 389-419. [in Russian]
- Plavilstshikov N.N. 1968. Review of the genus *Agapanthia* Serv. (Coleoptera, Cerambycidae) of the USSR fauna. - Archives of Zoological Museum

- Moscow State University. 11: 113-168.
- Pomerantsev D. 1908. List of beetles in the vicinity of the city of Velsk and other places in the Vologda province. - Proceedings of the Russian Entomological Society. 38 (4): 421-506.
- Rabil J. 1992. Catalogue des Coléoptères de la Forêt de la Grésigne (Tarn). - Nouvelles Archives du Muséum d'Histoire Naturelle de Lyon. 29-30: 1-174, 12 figs.
- Rapuzzi P., Sama G. & Kotán A. 2013. Two new *Agapanthia* Audinet-Serville, 1835 species from Greece (Coleoptera: Cerambycidae). - Munis Entomology & Zoology. 8 (2): 582, 587.
- Reitter E. 1898. Ueber die bekannten und einige neue palaearctische *Agapanthia*-Arten. (Coleoptera.). - Wiener Entomologische Zeitung. 17 (4-5): 130-135.
- Reisdorf P., Zagatti P., Doguet S. & Delobel A. 2015. Le Coléoptérome du Marais de Montabé. Chapitre 5: tableau de bord 2013 et présentation des Chrysomeloidea. - Le Coléoptériste, Bulletin de liaison de l'ACOREP. 18 (3): 152-164.
- Roubal J. 1917. Eine neue Colon-Art und eine neue *Agapanthia*-Aberration. - Neue Beiträge zur systematischen Insektenkunde. 1 (8): 63.
- Runich A.P. 2009. Species composition and some aspects of biology of longhorned beetles (Coleoptera, Cerambycidae) in Saransk. - Bulletin of Mordovian University. Biological Sciences Series. 1: 57-58.
- Runich A.P., Kasatkin D.G. & Lantsov V.I. 2000. Contribution to the study of timber-beetles (Coleoptera, Cerambycidae) fauna of the Region of Caucasian Mineral Waters (based on the materials of A.P. Runich collection - collected in 1946-1955). - In: Fauna of Stavropol Region. Compendium of scientific publications, N10. Stavropol, Publishing House of Stavropol State University: 145pp. [in Russian]
- Şabanoğlu B. 2020. Faunistic, Ecological, Zoogeographical, and Systematic Evaluation of Cerambycidae (Coleoptera) of the Eastern Black Sea Region of Turkey. - Transactions of the American Entomological Society, Philadelphia. 146: 196-219.
- Saikina S.M., Knyazev S.A., Ponomarev K.B., Teploukhov V.Yu., Kosheleva T.F., Dubatolov V.V. 2022. Checklist of longicorn beetles (Coleoptera, Cerambycidae) of Omsk Region (Russia). - Acta Biologica Sibirica. 8: 793-819.
- Sakalian V., Migliaccio E., Tassi F. & Georgiev G. 2021. A checklist and areography of Buprestidae, Vesperidae and Cerambycidae (Coleoptera) in Abruzzo, Lazio and Molise National Park, Italy. - Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa". 64 (2): 35-60.
- Sakenin H., Samin N., Moemen Beitollahi S., Ezzatpanah S., Havaskary M., Rastegar J., Valizadeh A. & Shakouri M.J. 2011. A study on the longhorn beetles (Coleoptera: Cerambycidae) from north-western Iran. - Calodema. 143: 1-19.
- Sakharov N.L. 1903. The beetles of the environs of Mariinskoye Farming School and other localities of Saratov Region. - Proceedings of Saratov Society of Scientists and Naturalists. 4 (2). Saratov: 3-86. [in Russian]
- Sama G. 1981. Materiali per una Fauna dei Cerambycidae d'Italia. - Annali del

M.A. Lazarev

- Museo Civico di Storia Naturale Giacomo Doria, Genova. 83: 473-522.
- Sama G. 1992. Note sur les longicornes de la Péninsule Ibérique avec description d'une nouvelle espèce de *Trichoferus*. - *Biocosme Mésogéen*. 8 (4) - 9 (1): 395-400.
- Sama G. 2003. Atlas of the Cerambycidae of Europe and the Mediterranean Area. Volume 1: Northern, Western, Central and Eastern Europe. British Isles and Continental Europe from France (excl. Corsica) to Scandinavia and Urals. Vít Kabourek, Zlín. 2003 (2002): 1-173, 729 figs.
- Sama G. & Rapuzzi P. 2011. Una nuova Checklist dei Cerambycidae d'Italia (Insecta Coleoptera Cerambycidae). - *Quaderno di Studi e Notizie di Storia Naturale della Romagna*. 32: 121-164.
- Sama G., Buse J., Orbach E., Friedman A.-L.-L., Rittner O. & Chikatunov V. 2010. A new catalogue of the Cerambycidae (Coleoptera) of Israel with notes on their distribution and host plants. - *Munis Entomology & Zoology*. 5 (1): 1-51.
- Sama G., Seddighi N. & Talebi A.A. 2008. Preliminary note for a checklist of the Cerambycidae of Iran (Coleoptera - Cerambycidae). - *Biocosme Mésogéen*, Nice. 25 (3): 101-126.
- Sautière Ch. 2005. Les Cerambycidae des îles et franc-bords de la Loire entre Tours et Amboise (Indre-et-Loire). - *Bulletin de Liaison de l'Entomologie Tourangelle et Ligérienne, Saint-Cyr sur Loire*. 26 (1): 10-28.
- Seidlitz G.C.M. von. 1891. Fauna Transsylvanica. Die Käfer (Coleoptera) Siebenbürgens. Königsberg: Hartungsche Verlagsdruckerei, [12] + lvi + 192 + 914 pp., 1 pl. [issued in parts: Pp. i-xl, Gattungen 1-48, Arten 1-240 in 1888; Pp. xli-lvi, Gattungen 49-128, Arten 241-544 in 1889; Pp. xlix-lvi, Gattungen 129-192, Arten 545-914 in 1891].
- Serafim R. 2010. The catalogue of the palaearctic species of Lamiinae (Coleoptera: Cerambycidae) from the patrimony of "Grigore Antipa" National Museum of Natural History (Bucharest) (Part V). - *Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa"*. 53 (1): 235-272.
- Shapovalov A.M. 2012. Longicorn-beetles (Coleoptera, Cerambycidae) of Orenburg Region: fauna, distribution, bionomy. Archives of Orenburg Branch of Russian Entomological Society, 3. Orenburg: Orenburg Branch of Russian Entomological Society: 224 p. [in Russian]
- Shapovalov A.M. & Filimonov R.V. 2012. Contributions to the fauna of the Longicorn-Beetles (Coleoptera, Cerambycidae) of chesma pine forests of the Chelyabinsk region. Pp. 95-103. - In: *Proceedings of the Orenburg branch of the REO. 2. Orenburg branch of the Russian Entomological society. Orenburg: Printing house «Express Print»*. 116 pp.
- Shapovalov A.M., Nemkov V.A., Rusakov A.V. & Shovkun D.F. 2006. Longhorn beetles (Coleoptera, Cerambycidae) of the Orenburg region. - *Bulletin of the Orenburg State University, appendix, materials of the III International Conference "Biodiversity and Bioresources of the Urals and Adjacent Territories"*. Orenburg: OGU Publishing House, 4: 105-109. [in Russian]
- Shernin A.I. 1974. Fam. Cerambycidae - Longicorn-beetles. - Chapter 7. Coleoptera, Strepsiptera. - In: *Animal World of Kirov Region, vol. 2, Kirov: 111-227*. [in Russian]

M.A. Lazarev

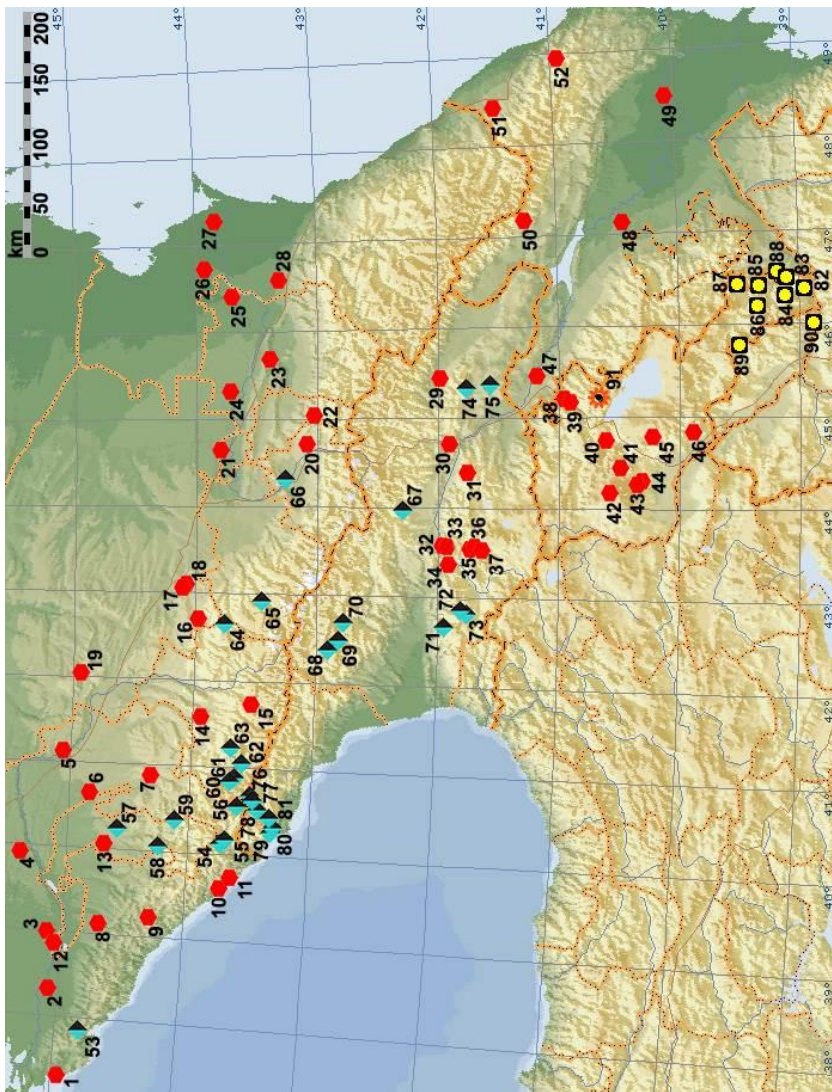
- Sheshurak P.N., Nazarov N.V. & Sadovnich L.V. 2006. Longhorn beetles (Coleoptera: Cerambycidae) of planned Mezin natural national park and its vicinities (Chernigov region, Ukraine). - Scientific bulletin of Uzhgorod University. Biology Series. 19: 267-269.
- Sheshurak P.N. & Sadovnich L.V., 2002. Flight period of timber-beetles (Coleoptera, Cerambycidae) in Tchernigov region. - Izvestiya Kharkovskogo Entomologicheskogo Obshchestva [The Kharkov Entomological Society Gazette]. 9 (1-2) (2001): 241-144. [in Russian]
- Shin N.R., Shin S., Okamura Y., Kirsch R., Lombard V., Švácha P., Denux O., Augustin S., Henrissat B., Mckenna D.D. & Pauchet Y. 2021. Larvae of longhorned beetles (Coleoptera; Cerambycidae) have evolved a diverse and phylogenetically conserved array of plant cell wall degrading enzymes. - Systematic Entomology. 46: 1-14.
- Siering G. & Beier W. 2019. Bockkäfer-Funde aus Bulgarien (Coleoptera, Cerambycidae). 1. Nachtrag - Entomologische Nachrichten und Berichte. 63: 237-244.
- Siering G. & Rothe M. 2020. Bockkäfer-Beobachtungen im Lahemaa-Nationalpark in Estland (Coleoptera, Cerambycidae). - Entomologische Nachrichten und Berichte. 64 (3): 273-276.
- Siering G. & Shumka S. 2015. Die Bockkäfer-Fauna (Coleoptera, Cerambycidae) des Shkumbin-Tales und weiterer Gebiete bei Librazhd (Albanien). - Entomologische Blätter für Biologie und Systematik der Käfer. 111: 459-463.
- Simon H. 2007. Chasses entomologiques particulières en Périgord (Coleoptera). - L'Entomologiste. 63 (3): 155-156.
- Sláma M. 1998. Tesaříkovité - Cerambycidae České republiky a Slovenské republiky (Brouci - Coleoptera). Praha: 383 pp.
- Sláma M. 2017. Descriptions of two new species in the genus *Agapanthia* (Coleoptera, Cerambycidae). - Humanity space. International almanac. 6 (1): 61-68.
- Soelen J. Van & Markusse M.M., 1983. Notes on the distribution of some insect species living in the stems of *Aster tripolium* L. (Compositae). - Entomologische Berichten, Amsterdam. 43: 124-127.
- Sonthonnax L. 1889. Notes entomologiques, Aout. - L'Échange, Revue Linnéenne. 5 (56): 62-63.
- Steiner S. & Schmid H. 2013. Eine neue *Agapanthia*-Art (Coleoptera: Cerambycidae: Lamiinae: Agapanthiini) aus Griechenland. - Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen. 65: 1-4.
- Stolbov V.A., Sergeeva E.V., Lomakin D.E. & Sheykin S.D. A check-list of longicorn beetles (Coleoptera: Cerambycidae) of Tyumenskaya Oblast of Russia. - Euroasian entomological journal. 18 (3): 199-212.
- Švácha P. & Lawrence J.F. 2014. Arthropoda: Insecta: Coleoptera. Volume 3: Morphology and Systematics (Phytophaga). 2.4 Cerambycidae Latreille, 1802. In Walter de Gruyter, Handbook of Zoology 3: i-xii + 1-676, 465 figs. Edited by Richard A.B. Leschen & Rolf G. Beutel
- Szafraniec S. & Łuszczak M. 2021. Materiały do poznania rozmieszczenia kózkowatych (Coleoptera, Cerambycidae) Beskidu Zachodniego - gatunki

- nieczęste, częste i pospolite [Contribution to the knowledge of the distribution of longhorn beetles (Coleoptera and Cerambycidae) in the Western Beskid Mountains - infrequent, frequent and common species]. - Wiadomości Entomologiczne, Poznań. 40 (3): 16-34.
- Szczepański W. & Szczepański W.T. 2019. Nowe stanowiska wybranych gatunków z rodziny kózkowatych (Coleoptera: Cerambycidae) w Polsce południowo-zachodniej. - Acta Entomologica Silesiana. 27 (012): 1-11.
- Tatarinova A.F., Nikitsky N.B. & Dolgin M.M. 2007. Longicorn or timber-beetles (Coleoptera, Cerambycidae). Fauna of European north-east of Russia. Vol. 8. Part 2. S.-Petersburg, Nauka: 302 pp. [in Russian].
- Tavakilian G. (2023, Ed.) Base de données Titan sur les Cerambycidés ou Longicornes. In: Tavakilian G.L. & Chevillotte, H. <http://titan.gbif.fr> (accessed 22.11.2022)
- Tsherepanov A.I. 1984. Longicorn Beetles of North Asia (Lamiinae: Pterycoptini - Agapanthiini). Novosibirsk: 214 pp. [in Russian]
- Tsherepanov A.I. 1985. Longicorn Beetles of North Asia (Lamiinae: Saperdini-Tetraopini). Novosibirsk: 256 pp. [in Russian]
- Tsurikov M.N. 2009. Beetles of the Lipetsk region. Voronezh: Publishing and Printing Center of Voronezh State University. 332 pp. [in Russian]
- Touroult J., Cima V., Bouyon H., Hanot Ch., Horellou A. & Brustel H. 2019. Longicornes de France - Atlas préliminaire (Coleoptera: Cerambycidae & Vesperidae). - Supplément au bulletin d'ACOREP-France, Paris: 1-176.
- Týr V. 2011. Brouci (Coleoptera) Žihle a okolí. 4.část. Cerambycidae (Beetles (Coleoptera) in the surroundings of Žihle. Part 4. Cerambycidae). - Západočeské entomologické listy. 2: 70-80.
- Villiers A. 1978. Faune des Coléoptères de France I. Cerambycidae. Paul Lechevalier, Paris. Encyclopédie Entomologique 42: i-xxviii + 611 pp, 1802 figs.
- Vitali F. 2018. Atlas of the Insects of the Grand-Duchy of Luxembourg: Coleoptera, Cerambycidae. - Ferrantia 79: 1-208, 342 figs. Musée national d'histoire naturelle, Luxembourg
- Vives E. 1984. Cerambycidos (Coleoptera) de la Peninsula Iberica y de las Islas Baleares. - Treballs del Museu Zoologia, 2. Barcelona: 137 pp.
- Vlasov D.V. 2019. The longhorn beetles (Coleoptera: Cerambycidae) of Yaroslavl Region. Scientific works of the state nature reserve "Prisursky". 34: 86-114.
- Voet J.E.1781. Catalogus Systematicus Coleopterorum. - La Haye, Bakuhsen. 2: 1-254, 50 pls.
- Volkovitsh, V.G. 1986. Jewel-beetles, Longicorn-beetles, Bark-beetles (Coleoptera: Buprestidae, Cerambycidae, Ipidae) of the natural reserve "Les na Vorskle". - In: Complex study of biogeocenosis of forest-steppe oakery. Leningrad: LGU Publishing House: 92-104. [in Russian]
- Vukajlović F. & Živanović N. 2014. The Longhorn Beetles (Coleoptera: Cerambycidae) of the Gledić Mountains (Central Serbia). - Kragujevac Journal of Science. 36: 195-202, 3 figs.
- Warzee N. & Drumont A. 2004. Contribution à l'étude des Longicornes de l'Ardenne avec la découverte d'une nouvelle espèce pour la Belgique: Acanthocinus

M.A. Lazarev

- griseus (Fabricius) (Coleoptera, Cerambycidae). - Lambillionea. 104 (1) 1: 45-57.
- Weigel A. & Hartmann M. 2020. Fauna des Stadtgebietes von Erfurt, Teil VI: Bockkäfer, 2.Teil (Insecta: Coleoptera: Cerambycidae: Lamiinae). - Vernate. 39: 353-380.
- Weitzel M. 2005. Verzeichnis der in den Jahren 2003 und 2004 im NSG „Mattheiser Wald/Trier“ nachgewiesenen Bockkäfer (Coleoptera, Cerambycidae) und Hirschkäfer (Coleoptera, Lucanidae). - Dendrocopos, Trier 32: 69-73.
- Winkler A. 1929. Catalogus Coleopterorum regionis palaearticae. II. Pars 9-10. Wien: 1009-1264.
- Zabaluev I.A. 2010. To Beetles fauna (Insects Coleoptera) of Engels, Saratov Province: Annotated species list. Pp. 27-36. - In: Entomological and parasitological studies in the Volga region. Collection of scientific papers. Saratov: Saratov University. Issue 8. 140 pp.
- Zahaikévitch I.K. 1991 Taxonomy and Ecology of Longicorn Beetles. "Naukova Dumka". 180 pp. [in Russian]
- Zaitzev F.A. 1906. Materials for the fauna of Coleoptera (Coleoptera) of the Novgorod province. - Proceedings of the Freshwater Biological Station of the Imperial St. Petersburg Society of Naturalists. 2: 78-141. [in Russian]
- Zaitzev F.A. 1954. Timber-beetles (Cerambycidae) in the fauna of Georgia. - Archives of the Institute of Zoology of the Academy of Sciences of Georgian SSR. 13: 5-27. [in Russian]
- Zamoroka A.M. 2018. The longhorn beetles (Coleoptera: Cerambycidae) of the Eastern Carpathian Mountains in Ukraine. - Munis Entomology & Zoology. 13 (2): 655-691.
- Zamoroka A.M. 2022. The longhorn beetles (Coleoptera, Cerambycidae) of Ukraine: Results of two centuries of research. - Biosystems Diversity. 30 (1): 46-73.
- Zamoroka A.M., Panin R.Yu., Kapelukh Y.I. & Podobivskiy S.S. 2012. The catalogue of the Longhorn Beetles of Western Podillya, Ukraine (Coleoptera: Cerambycidae). - Munis Entomology & Zoology. 7 (2): 1145-1177.
- Żurawlew P. & Melke A. 2018. The longhorn beetles (Coleoptera: Cerambycidae) of Pleszew District (Wielkopolska-Kujawy Lowland). - Przegląd Przyrodniczy. 29 (2): 80-97.

Map 1.



M.A. Lazarev

A. (E.) v. *helianthi* Plavilstshikovi, 1935, stat. n.: Russia: Krasnodar Region: 1-11; Republic of Adygea: 12-13; Karachay-Cherkess Republic: 14-15; Stavropol Region: 16-19; Republic of North Ossetia-Alania: 20-21; Republic of Ingushetia: 22; Chechen Republic: 23-25; Republic of Dagestan: 26-28; Georgia: 29-37; Armenia: 38-46; Azerbaijan: 47-52.

A. (E.) v. *subnigra* Pic, 1890, stat. n.: Russia: Krasnodar Region: 53-56; Republic of Adygea: 57-59; Karachay-Cherkess Republic: 60-63; Kabardino-Balkarian Republic: 64-65; Republic of North Ossetia-Alania: 66; Republic of South Ossetia - the State of Alania: 67; Georgia: 68-75; Republic of Abkhazia: 76-81.

A. (E.) v. *syunika* ssp. n.: Armenia: 82-87; Azerbaijan: 88-90.

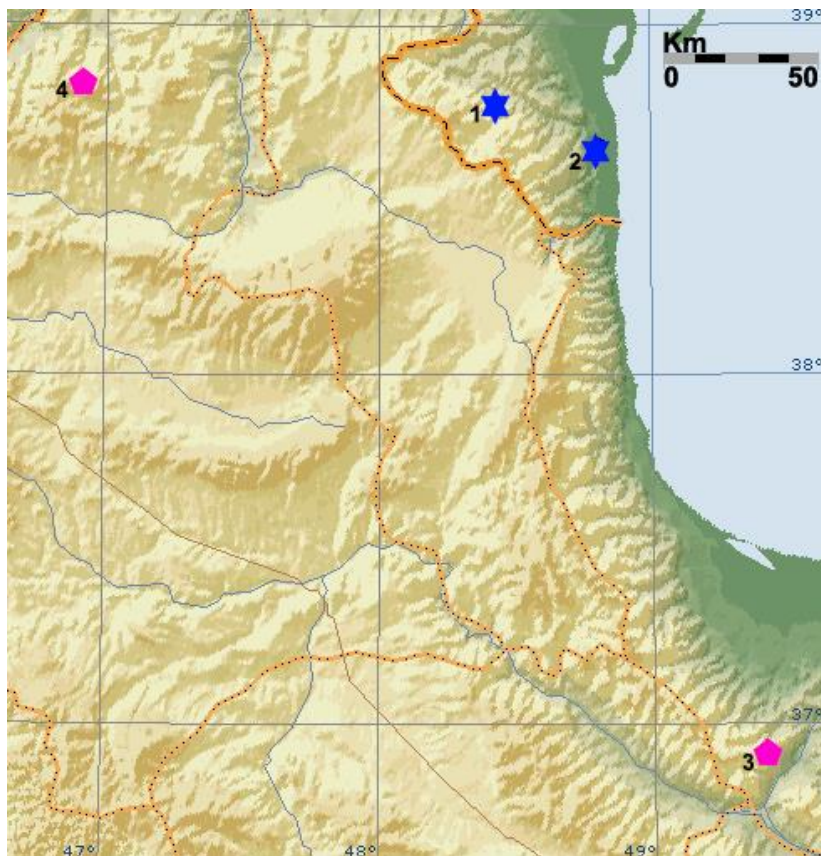
A. (E.) v. *murzini* ssp. n.: Armenia: 91.

1 - Anapa; 2 - Mingrelskoe; 3 - Ekaterinodar [Krasnodar]; 4 - Ladozhskaya; 5 - Armavir; 6 - Rodnikovskaya; 7 - Bolshaya Laba River; 8 - Goryachy Klyuch, Shchetka Mt.; 9 - Betta, 44°13'45.4853"N, 39°14'24.7287"E; 10 - Sochi, Utch-Dere; 11 - Sochi; 12 - Khomuty; 13 - Maikop; 14 - Zelenchukskaya; 15 - Teberda; 16 - Kislovodsk; 17 - Zheleznovodsk; 18 - Mineralnye Vody, Mashuk; 19 - Temnolesskaya; 20 - Vladikavkaz; 21 - Mozdok; 22 - Alkun; 23 - Grozny; 24 - Naurskaya; 25 - Starogladkovskaya, Terek River; 26 - Kizlyar; 27 - Novy Biryuzak; 28 - Khasavyurt; 29 - Teliani near, Telavi; 30 - Mtskheta; 31 - Manglisi; 32 - Surami; 33 - Akhaldaba; 34 - Borjomi; 35 - Tsagveri; 36 - Bakuriani; 37 - Orbeti, Trialiti Ridge; 38 - Ditavan, 40°57'18.0051"N, 45°13'19.2086"E; 39 - Ijevan; 40 - Darachichag [Tsaghkadzor]; 41 - Arailer; 42 - Alagez [Aragats Mt.]; 43 - Inaklyu [Antarut]; 44 - Byurakan; 45 - Geghard, 40°8'29.0451"N, 44°48'26.6485"E; 46 - Khosrov, 40°02'N, 45°02'E; 47 - Akstafa; 48 - Barda; 49 - Sabir-Abad; 50 - Nukha [Shaki]; 51 - Qusar; 52 - Altyagach; 53 - Novorossiysk, Andreevsky pass, 44°43'N, 37°51'E, 500 m; 54 - Atchishkho, 1600 m; 55 - Krasnaya Polyana; 56 - Kardyvach; 57 - Abago Mt., 2100 m; 58 - Lagonaki, Ridge, Kamennoe More, 44°10'33"N, 40°03'19"E, 1760-1800 m;

M.A. Lazarev

59 - westwards Tkhach Mt., 1700-1900 m; 60 - Damkhurts;
61 - Bolshaya Laba River, Pkhiya, 1400-1600 m; 62 - Bolshaya Laba River, Arkasara Ridge, 1500 m; 63 - Arkhyz, Abishara-Akhuba Ridge, Dzhumarykly-Tebe Mt. [43°36'7"N, 41°14'41"E], 1800 m; 64 - Dolina Narzanov; 65 - Tyrnyauz, 1800-2200 m; 66 - Fiagdon; 67 - Tskhinvali; 68 - Tehuri River, 2000 m; 69 - Lebarde, 42°44'20"N, 42°30'04"E, 1600 m; 70 - south slope of Svaneti Ridge, Lentrkhi district, 9 km NW Kheledy, 1800-1900 m; 71 - N slope of Meskhetsky Ridge, 6 km S Sairme, 1000 m; 72 - Meskhetsky Ridge, Zekari Pass, 2100-2200 m; 73 - Abastumani; 74 - Lori River, S Sagarejo; 75 - Udabno; 76 - Pyv Pass, 43°29'22"N, 40°41'18"E, 1880 m; 77 - congluent of Avadkhara and Lashepse, 43°29'49"N, 40°39'43"E, 1470 m; 78 - Atchibakh Mt., 15 km W Pskhu; 79 - Gagra; 80 - Mamzyshkha Mt.; 81 - westwards Bzyb Ridge, Anzhulyara Mt. [43°20'N, 40°28'E], 1250-1600 m; 82 - Gumorantz, 38°59'49.20"N, 46°22'35.76"E, 1516 m; 83 - Shikahogh; 84 - Khustup Mt.; 85 - Nor Arajadzor, 39°20'25.4451"N, 46°24'59.7684"E, 1360 m; 86 - Svarants, 39°21'21''N, 46°12'27''E, 1880 m; 87 - Khndzoresk, 39°30'9.3651"N, 46°25'53.7684"E, 1300 m; 88 - 16.5 km NW Zangilan, 39°11'35.4"N 46°31'23.5"E, 967 m; 89 - Nakhichevan, Bichenek; 90 - Nakhichevan, Ordubad; 91 - Armenia, Ayagut, 40°40'30.7251"N, 45°12'15.1285"E, 1420 m.

Map 2.



A. (*E.*) v. *lederi* Ganglbauer, 1884: Azerbaijan: 1 - Lerik; 2 - Avrora [Hirkan].

A. (*E.*) v. *hodeki* Danilevsky, 2018: Iran: 3 - Gilan, 12 km W Rostamabad, 36°55'N, 49°23'E; 4 - Makidi, 38°50'26.1651"N, 46°54'36.7284"E, 1450-1650 m.

Map 3.

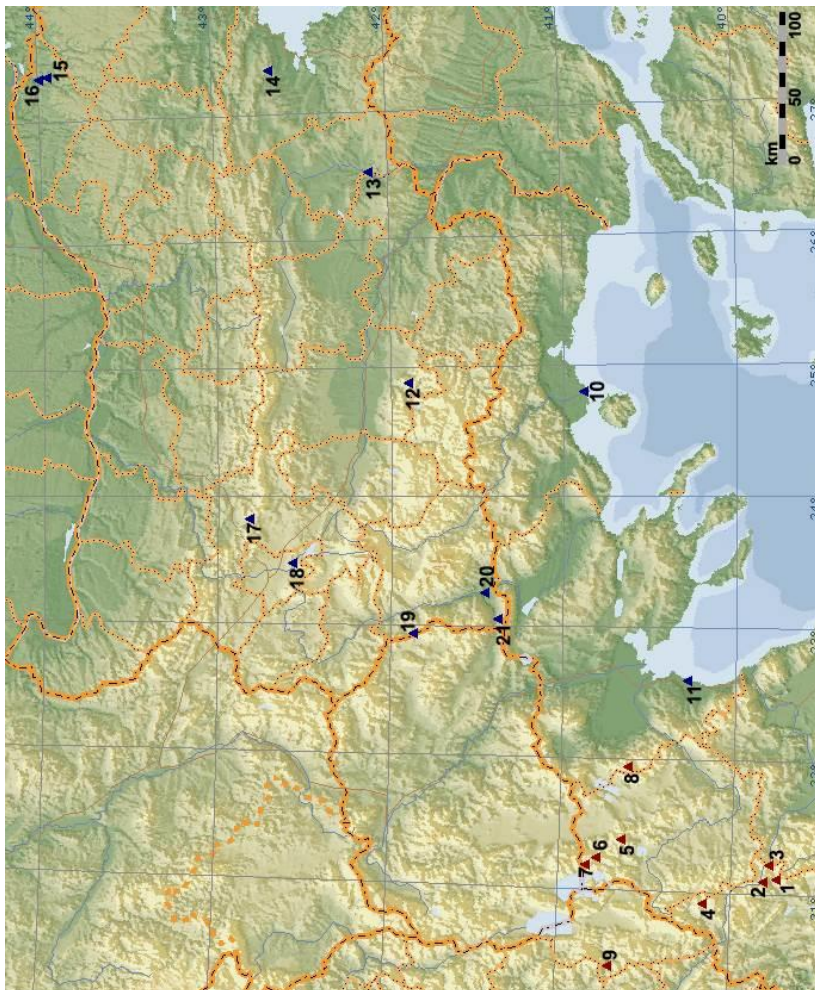


M.A. Lazarev

***A. (E.) v. giresunica* ssp. n.:** Turkey, Giresun province: 1 - Kumbet, 40°32'41.4294"N, 38°26'2.0124"E, 1748 m; 2 - Pinarlar environs, 40°39'15.4854"N, 38°21'57.9684"E, 950 m.

***A. (E.) v. shankhizai* ssp. n.:** 3 - Turkey, Denizli province, eastern edge of Denizli.

Map 4.



M.A. Lazarev

A. (*E.*) v. *markusi* Rapuzzi, Sama & Kotán, 2013, stat. n.: Greece: 1-8; Albania: 9.

A. (*E.*) v. *gazanchidisi* Lazarev, 2021, stat. n.: Greece: 10-11; Bulgaria: 12-21.

1 - Ipiros, Ioannina pref., 7 km SW Metsovo, 1360 m; 2 - Ipiros, Aaos lake; 3 - Ioannina, Katara pass, 1650 m, 39°47'48''N 21°13'49''E; 4 - Ipiros, pref. Ioannina, 2 km W Fourka, 1450 m; 5 - Macedonia, pref. Imathia, Mt. Vermio, 6 km W Naousa, 1041 m; 6 - Florina, Pisoderion, Agios Triados, 1400 m; 7 - Varnous Mts., 1450 m, Agios Germanos; 8 - Macedonia, pref. Imathia, Mt. Vermio, 6 km W Naousa, 1041 m; 9 - Korçë district, Opari area, Moglicë, E of the village, 40°42'25.2'', 20°25'04.6'', 525 m; 10 - Dasochori environs, 40°53'48.67''N, 24°48'26.12''E; 11 - Macedonia, Katerini dist., Paralia; 12 - Tchervenata Stena reserve, 41°54'36''N, 24°52'33''E, 1213 m; 13 - E Kayazhevo, 42°06'39''N, 26°31'14''E, 99 m; 14 - N Sudievo, 42°40'35''N, 27°19'27''E, 137 m; 15 - NW Vassil Levsky vill., 43°57'39''N, 27°21'47''E, 125 m; 16 - W Popkralevo vill., 43°59'38''N, 27°20'34''E, 50 m; 17 - Etropolevska Planina Mts., Ravna River riverside, 42°49'N, 23°49'E, 610 m; 18 - Lozenska Planina Mts., SE German vill., 780 m; 19 - SW Gabrovo vill., 41°52'10''N, 22°56'31''E, 1029 m; 20 - Kozhuch; 21 - E Stroumeshnitsa vill., 41°23'N, 23°03'E, 170 m.

Received: 22.01.2024

Accepted: 19.07.2024

О ЖУРНАЛЕ

Гуманитарное пространство (Гуманитарное пространство. Международный альманах = Humanity space. International almanac) издается с 2012 года. Публикуются статьи, являющиеся результатом научных исследований. К печати принимаются оригинальные исследования, содержащие новые, ранее не публиковавшиеся результаты, обзоры, аналитические и концептуальные разработки по конкретным проблемам гуманитарных и естественных наук.

Издание зарегистрировано в Международном Центре ISSN в Париже (идентификационный номер печатной версии: ISSN 2226-0773).

Выходит 4 номера в год, а так же дополнения в виде приложения к журналу.

Альманах представлен во многих базах данных и каталогах: Zoological Record (Web of Science), ZooBank, EBSCO, ERIH PLUS, Index Copernicus International, Genamics JournalSeek, Google Scholar, Интеллектуальная система тематического исследования наукометрических данных (ИСТИНА), Российский индекс научного цитирования (РИНЦ), КиберЛенинка (Cyberleninka) и др.

В связи с Федеральным законом от 29 декабря 1994 г. № 77-ФЗ «Об обязательном экземпляре документов», экземпляры сдаются в «Российскую книжную палату / филиал ИТАР-ТАСС». Один экземпляр остается в «РКП / филиал ИТАР-ТАСС», который является единственным источником Государственной регистрации отечественных произведений печати и отражения их в государственных библиографических указателях.

Издание поступает в основные фондодержатели РФ, перечень которых утвержден в законодательном порядке в соответствии с приказом Министерства культуры Российской Федерации от 29 сентября 2009 г. № 675 г. Москва «Об утверждении перечней библиотечно-информационных организаций, получающих обязательный федеральный экземпляр документов».

Осуществляется дополнительная адресная рассылка по территории РФ и за рубежом.

ABOUT THE JOURNAL

Humanity space (Гуманитарное пространство. Международный альманах = Humanity space. International almanac) has been published since 2012. Articles that are the result of scientific research are published. Texts could be original researches, containing new, previously unpublished results, surveys, analytical and conceptual manuscripts on specific issues of the humanities and natural sciences.

Publication is registered in the ISSN International Centre in Paris (identification number printed version: ISSN 2226-0773).

There are 4 issues per year, as well as supplements in the form of an appendix to the journal.

Almanac is presented in many databases and directories: Zoological Record (Web of Science), ZooBank, EBSCO, ERIH PLUS, Index Copernicus International, Genamics JournalSeek, Google Scholar, Intellectual System of the Thematic Research of Scientific Metric Data (ISTINA), Russian Science Citation Index (RSCI), Cyberleninka etc.

In connection with the Federal Law of December 29, 1994 No 77-FZ "On Obligatory Copy of Documents", copies shall be in "Russian Book Chamber / Branch ITAR-TASS". One copy remains in "Russian Book Chamber / Branch ITAR-TASS" which is the only source of state registration of Russian printed publications, and their reflection in the state bibliographies.

The publication goes to major holders of the Russian Federation, the list of which is approved by law in accordance with the order of the Ministry of Culture of the Russian Federation dated 29 September 2009 Moscow No 675 "On approval of the lists of library and information organizations receiving federal mandatory copy of the documents".

Additional targeted mailing is carried out on the territory of the Russian Federation and abroad.

Содержание // Contents

Гусаков А.А., Смирнов М.Э. Новый вид <i>Byrrhus</i> (Coleoptera: Byrrhidae) с Дальнего Востока России Gusakov A.A., Smirnov M.E. A new species of <i>Byrrhus</i> (Coleoptera: Byrrhidae) from the Russian Far East.....	432
Хава И. Новый вид <i>Litargus</i> Erichson, 1846 из Никарагуа (Coleoptera: Mycetophagidae) Háva J. A new species of <i>Litargus</i> Erichson, 1846 from Nicaragua (Coleoptera: Mycetophagidae).....	440
Хуссила Р., Сакенин Х., Самин Н., Руис Кансино Э. Дальнейшее пополнение Ichneumonidae (Hymenoptera) фауны Ирана Jussila R., Sakenin H., Samin N., Ruíz Cancino E. Further addition to the Ichneumonidae (Hymenoptera) fauna of Iran.....	445
Лазарев М.А. Таксономическая структура <i>Agapanthia villosoviridescens</i> (DeGeer, 1775) (Coleoptera, Cerambycidae) Lazarev M.A. Taxonomy structure of <i>Agapanthia villosoviridescens</i> (DeGeer, 1775) (Coleoptera, Cerambycidae).....	455
О ЖУРНАЛЕ	524
ABOUT THE JOURNAL	525